

AC/DC PORTABLE
STEREO CASSETTE-RECORDER 3-BAND RADIO
MODEL CRS-4003S
SERVICE DATA
JAN./1978



SUPERSCOPE® **SUPERSCOPE INC.**
BY **marantz**® 20525 NORDHOFF STREET CHATSWORTH,
CALIFORNIA 91311 U.S.A.

1. TECHNICAL SPECIFICATIONS

GENERAL

Dimensions 481 mm x 248 mm x 150 mm
(19" x 9-3/4" x 5-7/8")
Weight 7.4 kg (16 lbs 5 oz) with Batteries
Power Requirements AC 110 ~ 130V/220 ~ 240V
50/60 Hz, 15 Watts
8 "D" Size Batteries
2 RBD-1 Rechargeable Battery Packs
External 12 V DC

Semiconductor Complement

Transistors 34
FET's 2
Diodes 31
IC's 3

Terminals

Microphone Input x 2 Plug Type: Mini
Input Sensitivity: less than 0.32 mV (−70 dBV)
Input Impedance: 5.2 kΩ
Line Input x 2 Plug Type: Pin
Input Sensitivity: less than 100 mV (−20 dBV)
Input Impedance: 100 kΩ
Line Output x 2 Plug Type: Pin
Output Level: 0.775 V (0 VU) ±3 dB
Output Impedance: 7 kΩ
DIN (Play/Rec) Jack x 1 Plug Type: DIN
Input Sensitivity: less than 30mV (−30 dB)
Input Impedance: 47 kΩ
Output Sensitivity: 0.5V ± 3 dB
Output Impedance: 10 kΩ
External Speaker x 2 Plug Type: Mini
Output Power: 2.0 Watts x 2
(6 Ω, better than EIA DC)
Phono Input x 2 Plug Type: Mini
Input Sensitivity: less than 6 mV (−44 dBV)
Input Impedance: 25 kΩ
FM External Antenna x 1 Input Impedance: 75 Ω

Stereo Headphone x 1 Plug Type: Phone
Impedance: 8 Ω

AC Inlet x 1
DC 12 V x 1
Remote Control x 1

TAPE RECORDER SECTION

Tape Philips Type Cassette Tape
Recording System 4-Track System, AC Bias
Erasing System AC Erase
Rewind and Fast Forward Time 90 sec./C-60
Power Output 2.0 W x 2 (DC)
R/P Frequency Response
Normal 50 Hz +4, −8 dB/9 kHz +6, −5 dB
CrO₂/Fe-Cr 50 Hz +3, −10 dB/9 kHz +5, −6 dB
Signal-to-Noise Ratio 45 dB
Tape Speed 1-7/8 ips. (4.8 cm/sec.) ±3%
Wow and Flutter less than 0.25% rms (NAB WTD)

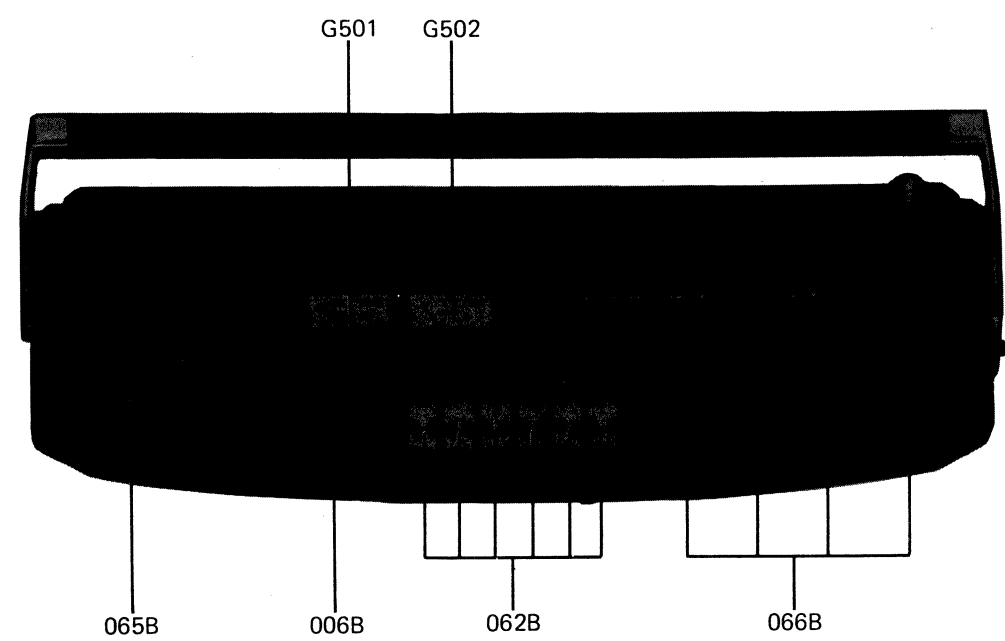
TUNER SECTION

Circuit System 3-Band FM/MW/SW, Superheterodyne
Frequency Range FM: 88 to 108 MHz
MW: 525 to 1605 kHz
SW: 6 to 18 MHz
Intermediate Frequency FM: 10.7 MHz
MW/SW: 455 kHz
Antenna FM: Telescopic Monopole
MW/SW: Ferrite Bar
Sensitivity FM: less than 7 μV (30 dB S/N)
MW: less than 500 μV/m (20 dB S/N)
Signal-to-Noise Ratio FM: better than 54 dB (1 mV
Input)
MW: better than 42 dB (5 mV/m Input)
FM Stereo Separation better than 28 dB (1 mV Input)

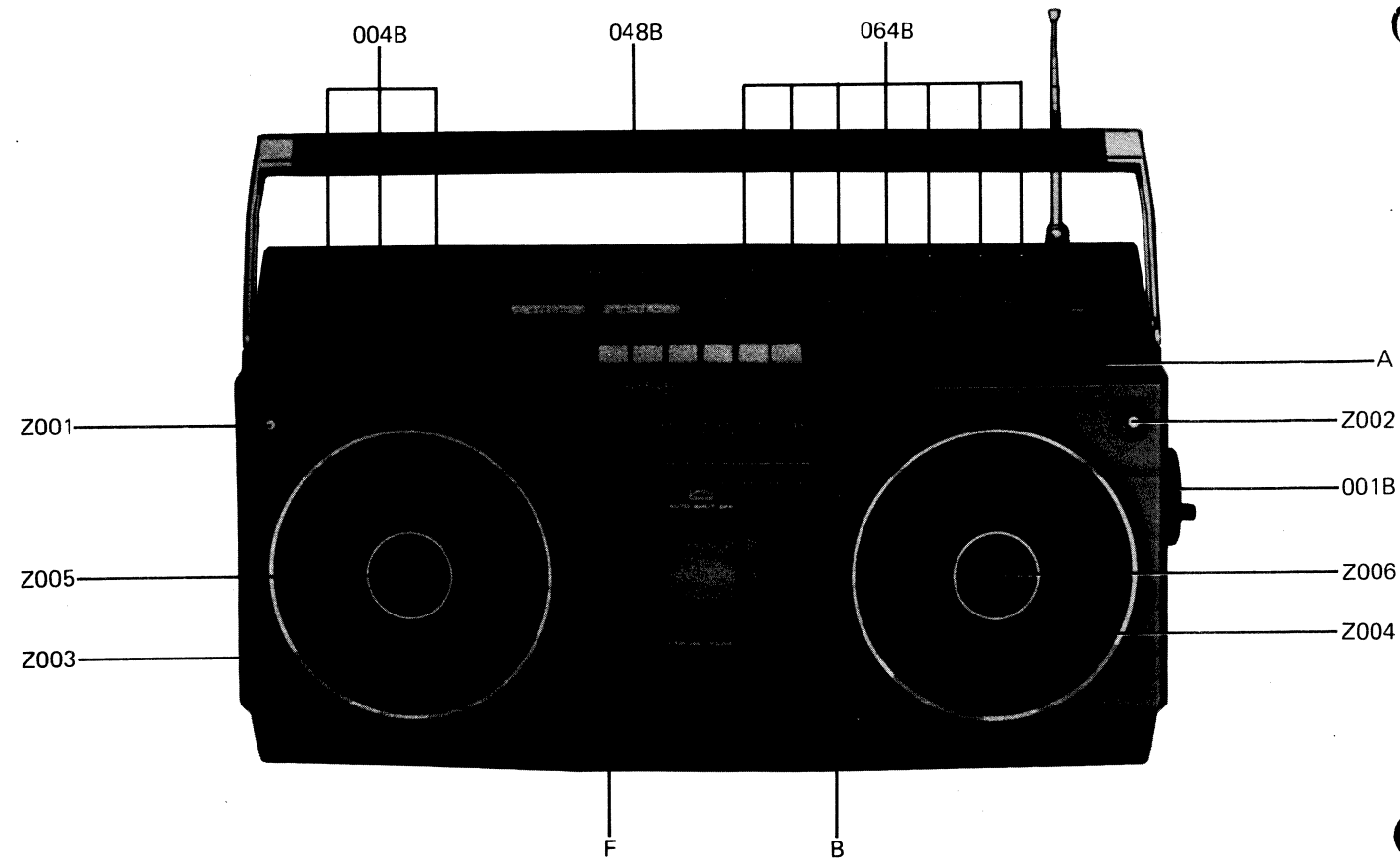
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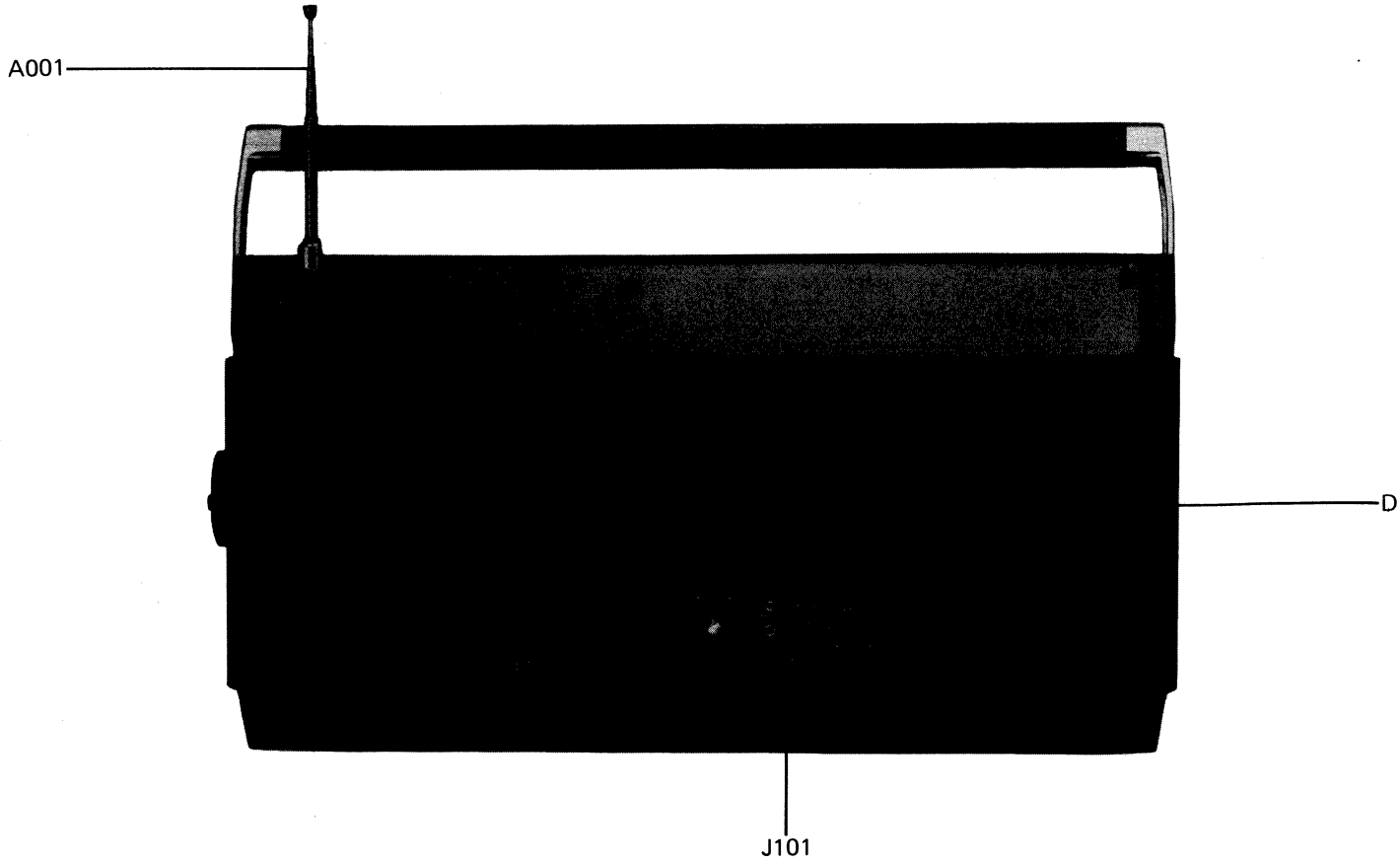
2. MAJOR COMPONENT LOCATIONS
2.1 CABINET - TOP VIEW



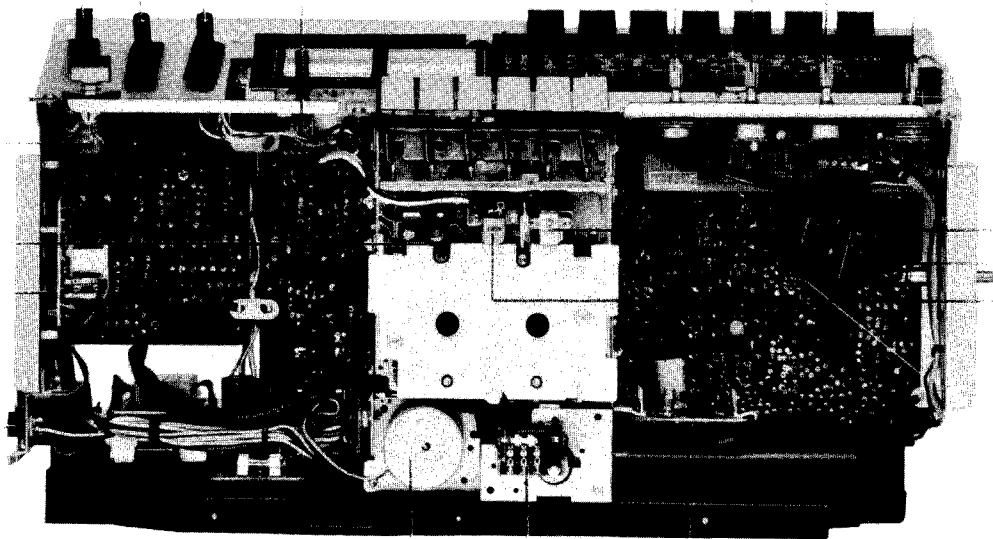
2.2 CABINET - FRONT VIEW



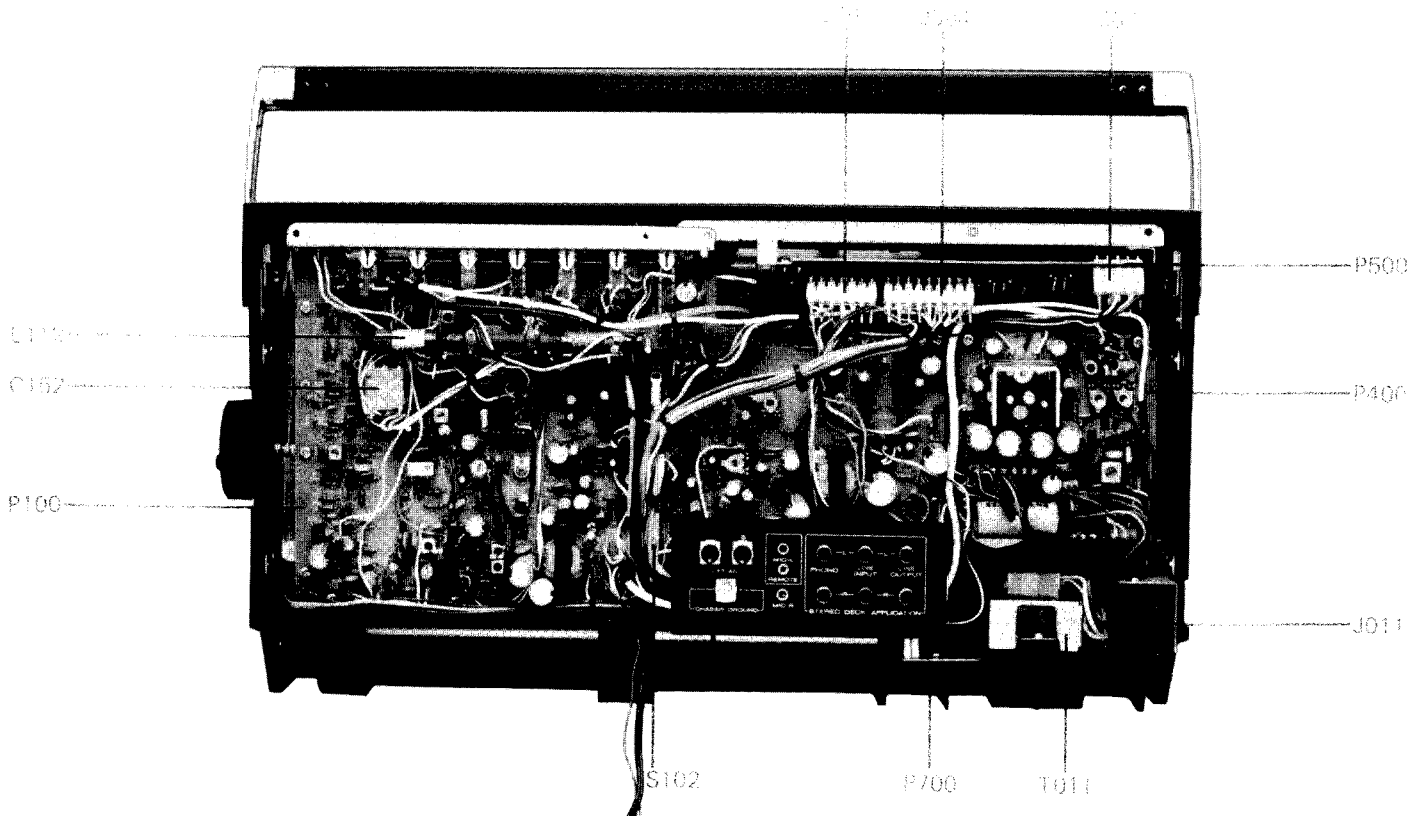
2.3 CABINET - REAR VIEW



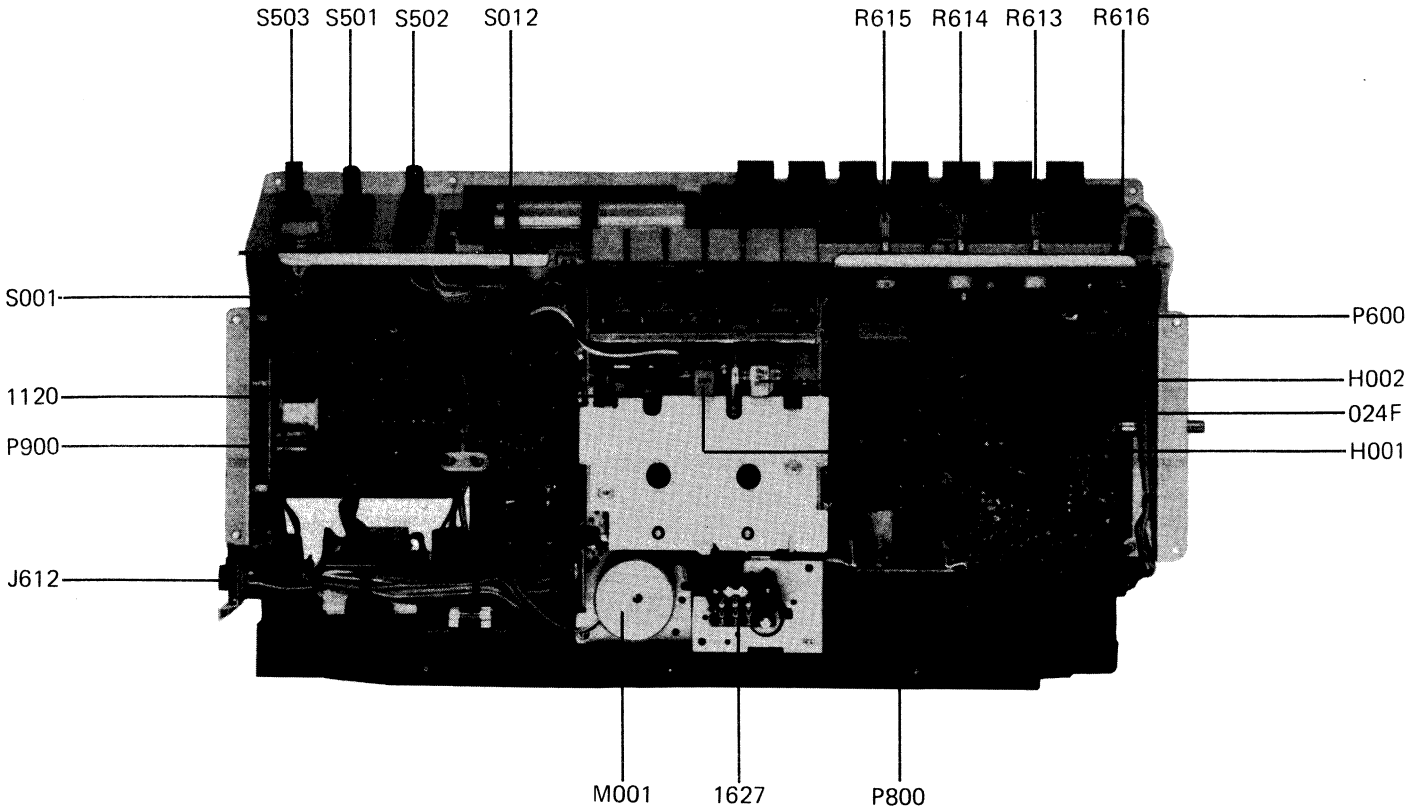
2.4 CHASSIS - FRONT VIEW



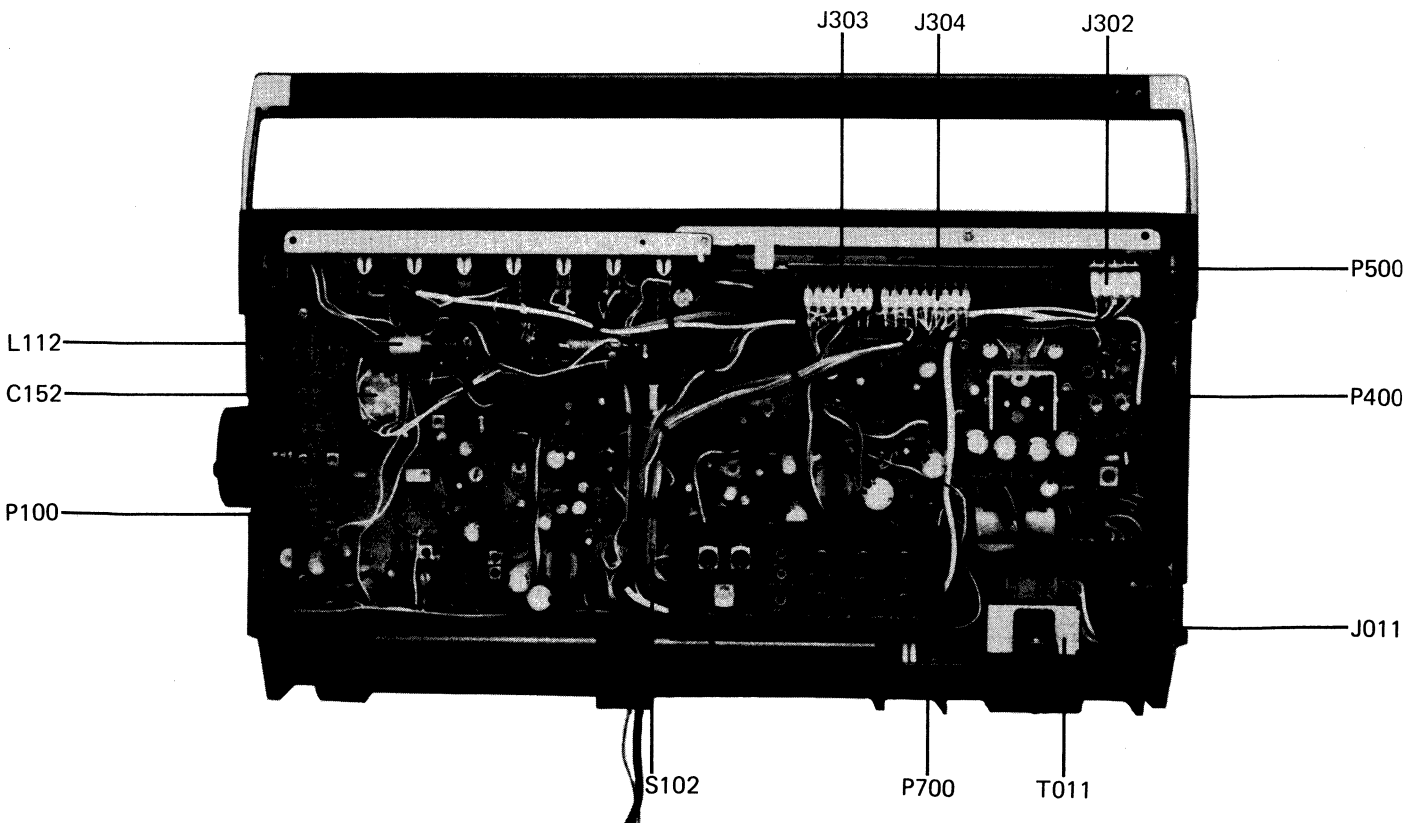
2.5 CHASSIS - REAR VIEW



2.4 CHASSIS - FRONT VIEW



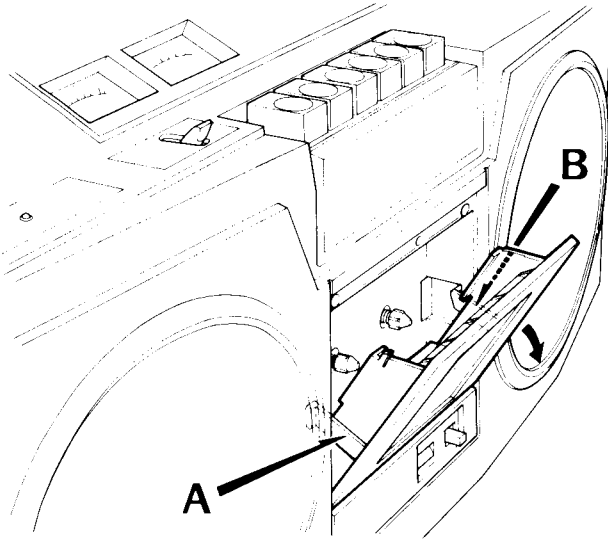
2.5 CHASSIS - REAR VIEW



3. REMOVING PROCEDURES

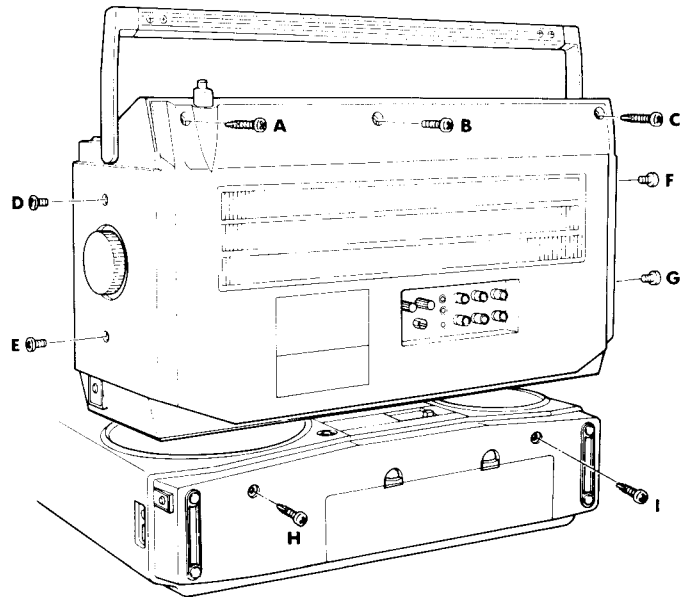
1. Removing the cassette escutcheon

While pressing the points A and B in the arrow direction, pull the escutcheon toward you as shown. The escutcheon will be removed.

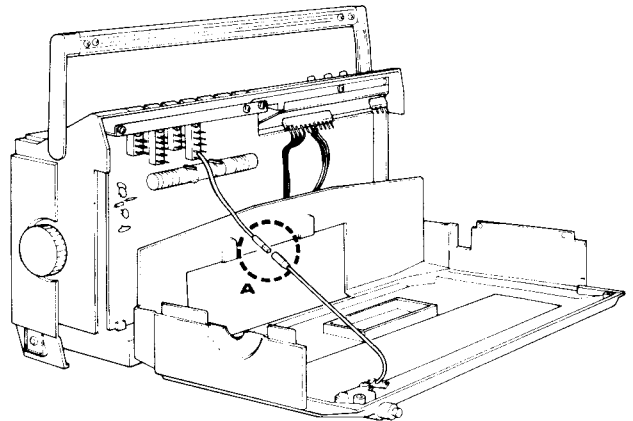


2. Removing the back cover

- a. Remove the three screws A through C on the back, four screws D through G on both sides, and two screws H and I on the bottom.



- b. Then, disconnect the antenna connector A, and the back cover will come off the casing.



3. Removing the chassis

- a. Remove the five knobs A through E.

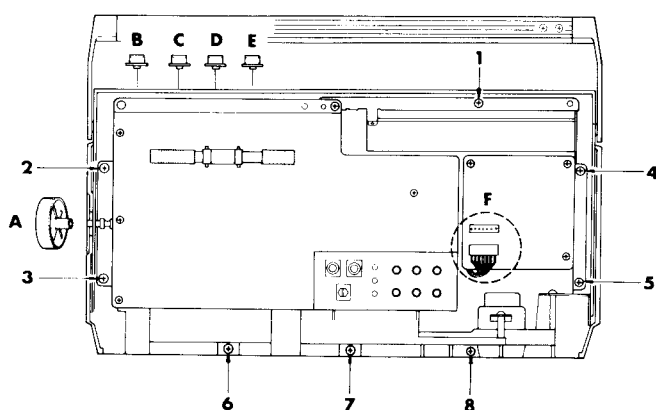
A — TUNING
B — VOLUME
C — TREBLE
D — BASS
E — BALANCE

- b. Remove the eight screws 1 through 8.

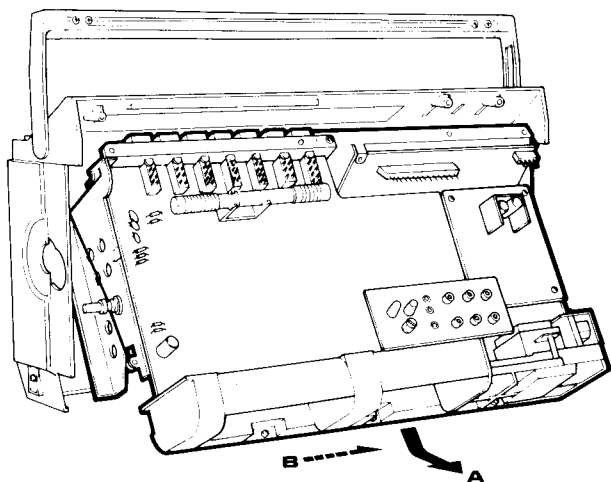
- c. Disconnect the connector F.

- d. Set the switches as:

Switch	Position
LOUDNESS	OFF
MODE	STEREO
TAPE SELECTOR	CrO ₂
METER	VU

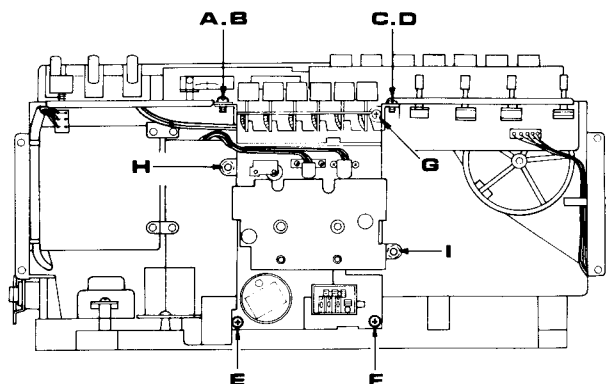


- e. Make certain that the cassette escutcheon, knobs, screws and cord are removed and the LOUDNESS, MODE, TAPE SELECTOR and METER switches are in positions as specified above. Bring out the lower part of the chassis in the arrow A direction as shown. Draw it toward the arrow B direction.



4. Removing the mechanical assembly

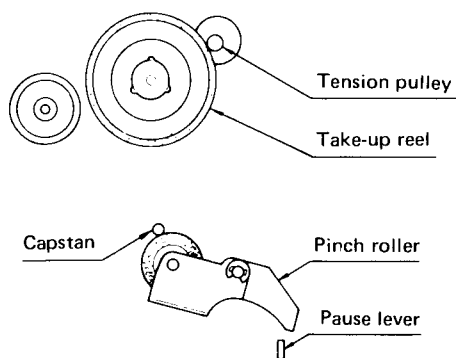
Remove the four top screws A through D, two front screws E and F, and the three back screws G through I. Draw the mechanical assembly out by pulling toward you from the front. Be careful not to break the lead wires connected to the heads.



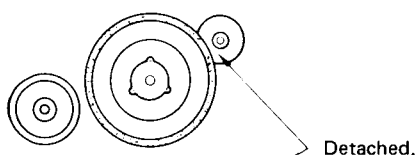
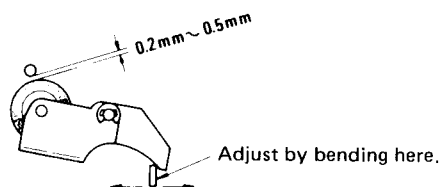
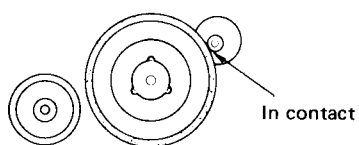
4. MECHANICAL ADJUSTMENTS

1. Adjusting the pause timing

Set the recorder in the playback mode. Press the PAUSE button in. Bend the pause lever with a long-nose pliers until the pinch roller detaches from the capstan before the tension pulley detaches from the take-up reel.



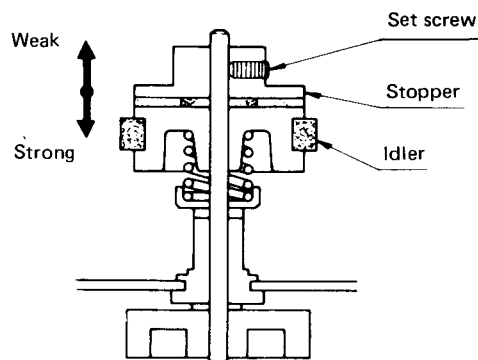
* In playback mode



2. Measuring the fast forward and rewind torques

Use a torque meter to measure the fast forward and rewind torques. If each result does not fall under the standards listed below, loosen the set screw and move the stopper up and down for proper torque as shown.

Standards: Fast forward torque = 90 g·cm, Rewind torque = 80 g·cm



3. Measuring of play, FF. And Rewind torque-in Play/FF/ Rew Mode.

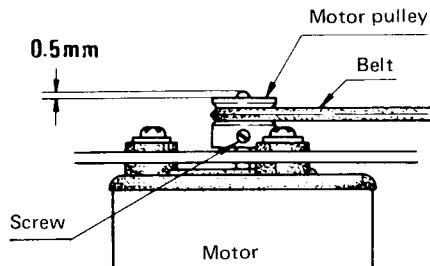
Measure the torques with a torque meter to confirm that the torque satisfies the specified value in each mode.

Specifications

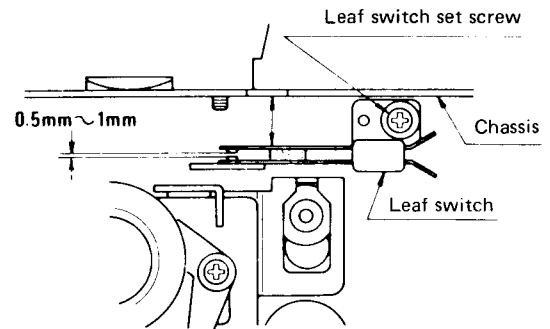
Play	40 to 70g·cm
FF	60 to 110g·cm
Rew	60 to 110g·cm

4. Positioning the motor pulley

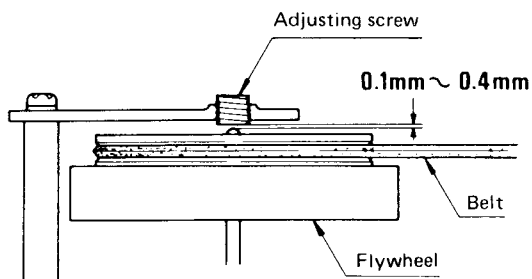
Loosening the set screw. Adjust it until the clearance between the motor shaft top and motor pulley top is 0.5 mm.

**6. Positioning the leaf switch**

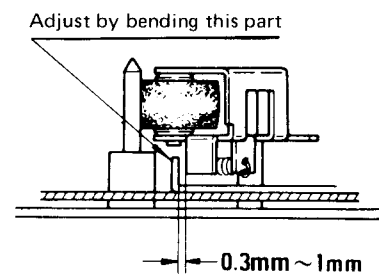
Fit the leaf switch so that it is made parallel with the chassis when the recorder is at rest.

**5. Adjusting the flywheel thrust**

Turn the adjusting screw until the clearance between the adjusting screw and thrust shaft end of flywheel is 0.1 to 0.4 mm. After adjustment, be sure to paint the adjusting screw to lock.

**7. Positioning the pinch roller**

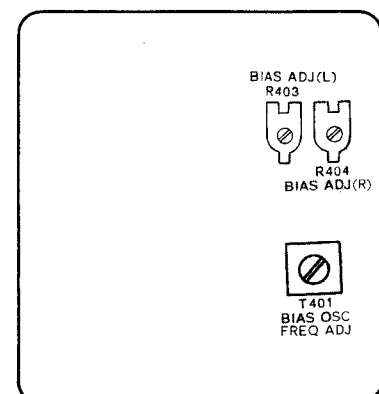
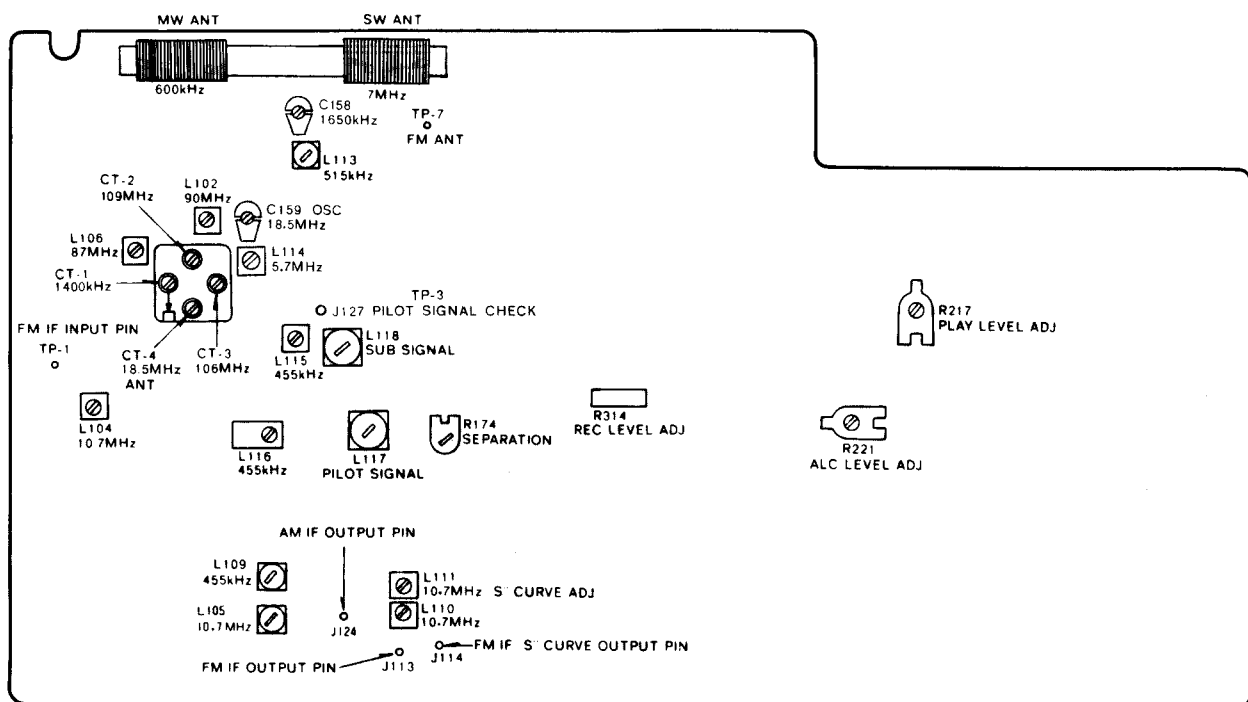
Set the recorder in the playback mode. Adjust the position of the pinch roller as shown.



5. ELECTRICAL ADJUSTMENTS AND MEASUREMENTS

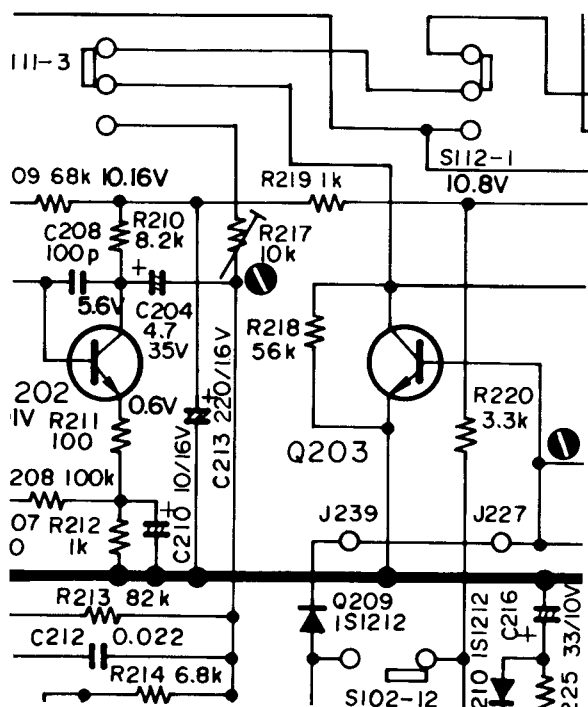
Precaution for Adjustment and Measurement

1. Whenever adjusting or measuring any circuit, wipe the heads clean with a soft cloth moistened with alcohol or carbon tetrachloride. Also be sure to demagnetize the heads, capstan, and similar parts.
2. The voltage at any electrical point may vary with the input signal, so make measurements of voltage under no signal condition.
3. Transistors are affected by microvoltage. Whenever measuring on them, use a VTVM having a high internal resistance and high input sensitivity enough to eliminate errors in measurement.
4. In adjustment or measurement, set the TONE control to its mechanical center ("0") unless otherwise specified.
5. For measurements of outputs, connect a pure $6\ \Omega$ resistor across the external speaker terminal and use a VTVM. Unless otherwise specified, adjust the VOLUME control for the standard output level, 100 mW ($0.775\text{ V}/6\ \Omega$).



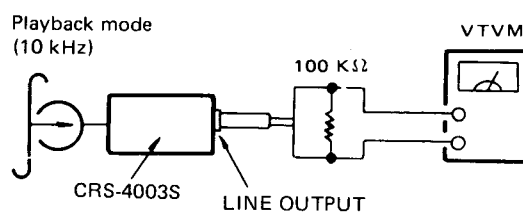
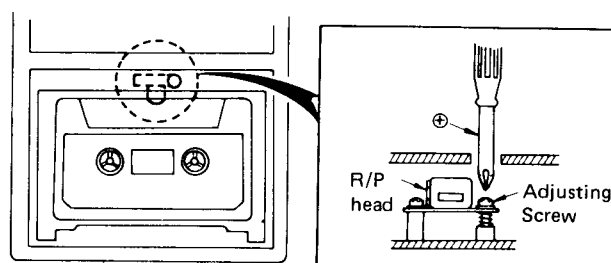
1. Adjusting the playback level

Play the 333 Hz level adjusting tape MTT 112 back and inspect the R and L channel output voltages at the LINE OUTPUT jack. Adjust R217 until the output voltage of the R channel coincides with that of the L channel. The output voltage at LINE OUTPUT jack will be around 0.95 V.



2. Adjusting the head azimuth

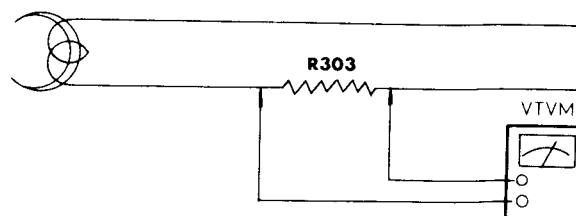
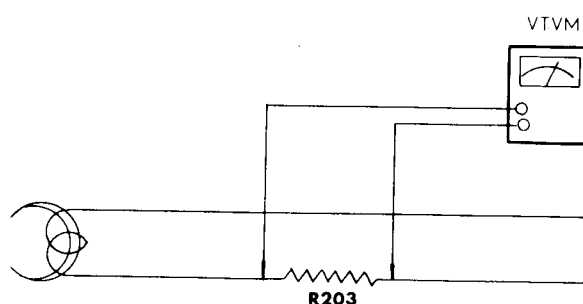
Connect a VTVM across the LINE OUTPUT jack. Play the 10 kHz signal of the test tape back. Turn the adjusting screw until the output voltage is maximum. If the maximum voltages of the both channels are different, adjust the across to a point at which the output levels of both channels are identical. After adjustment, be sure to paint the adjusting screws to lock.



3. Adjusting the bias current

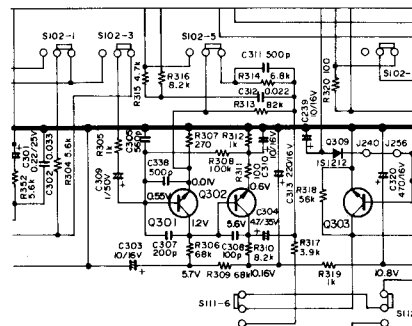
Set the power voltage to 12 V and set the TAPE SELECTOR switch to NORMAL. Set the recorder in the recording mode. Adjust the semifixed resistors R403 and R404 until the voltages across R203 and

R303 are 6.0 mV. The bias current will increase by turning the semifixed resistors R403 and R404 counter-clockwise as locking toward part arrangement.



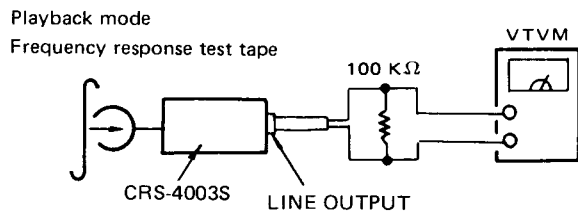
4. Adjusting the recording level

Set the recorder in the recording mode. Connect a 1 kHz, -77 dBV signal to both R and L external mic jacks. Adjust R314 until both output voltages at the LINE OUTPUT jacks are identical. In turn, increase the mic input signal level up to -50 dB. Adjust R221 until both output voltages at the LINE OUTPUT jacks are identical. Note that since the ARL circuit has a time constant, each output voltage will not immediately follow up the variation of R221. So take your time in this measurement. Finally, speak toward the built-in condenser mic and make certain that the two VU meter pointers swing similarly around -10 VU. If there is a great difference between the two deflections, connect a -77 dBV signal to the external mic jacks and adjust R314 until the level difference at the LINE OUTPUT jacks is within 3 dB, thereby minimizing the difference between the two channel recording amplifications.

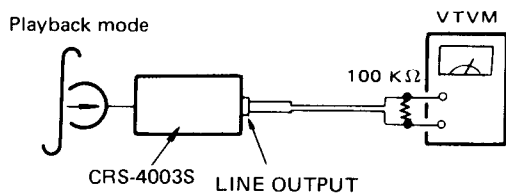
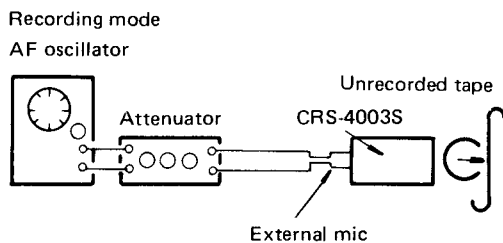


7. Measuring the playback frequency response

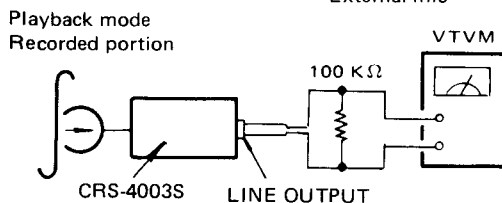
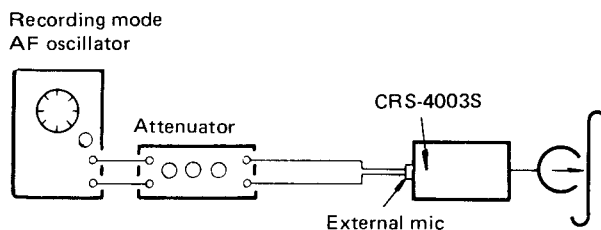
Play the frequency response test tape back. Read the signal levels at the LINE OUTPUT jack at various frequencies in reference to the 333 Hz level.

**8. Measuring the combined recording and playback frequency response**

Connect a 1 kHz, -90 dBV signal from an audio-frequency oscillator to the external mic jack and record it. Similarly, record a 60 Hz, 100 Hz, 6 kHz, and 8 kHz signals. In turn, play the recorded signals back. Read the signal levels at the LINE OUTPUT jack in reference to 1 kHz, 0 dB signal.

**9. Measuring the combined recording and playback level**

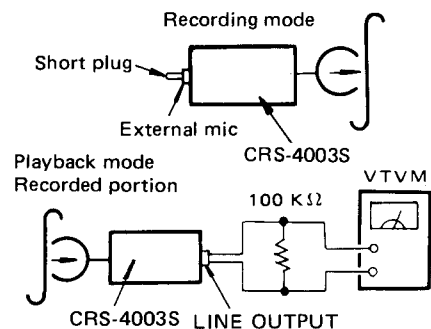
Connect a 1 kHz, -90 dBV signal from an audio-frequency oscillator to the external mic jack and record it. In turn, play the recorded signal back. Read the signal level at the LINE OUTPUT jack. The normal signal level will be 775 V rms.

**10. Measuring the combined recording and playback distortion.**

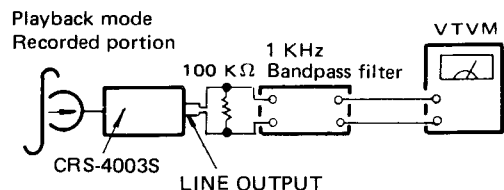
Record and playback a signal in a manner similar to that for Item 9 above. Measure the distortion, which is normally around 2.5%.

11. Measuring the combined recording and playback signal-to-noise ratio

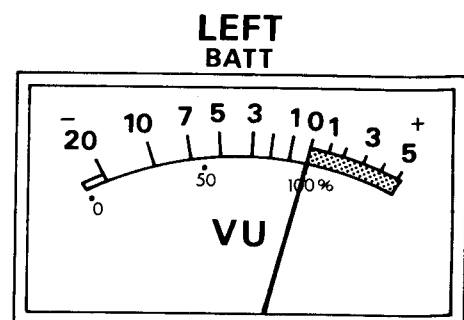
Record a signal in a manner similar to that for Item 9 above. Rewind the tape a little. Make the external mic jack short using a short plug and erase a part of the rewound tape. Read the signal level for the 1 kHz, -60 dBV input and the noise level for the erased part. Subtract the noise level from the signal level in dB. The normal signal-to-noise ratio is around 47 dB.

**12. Measuring the erasing level**

Connect a 1 kHz bandpass filter to the LINE OUTPUT jack on the CRS-4000 as shown. Play back the tape used in Item 11 above. (The tape consists of the 1 kHz, -60 dB signal recorded portion and erased portion.) Read the output level for the erased portion in reference to that of the signal recorded portion. The normal erasing level is less than -60 dB.

**13. Calibrating the VU meter**

Connect a precisely-adjusted 9 V DC power source to the DC 12 V jack. Set the CRS-4000 in the playback mode and set the METER switch to "BATT". Adjust R506 until the meter pointer swings to the division "0" on the red zone.



6. CURRENT CONSUMPTION

	VOLUME	PLAY	REC
RADIO	Maximum	1100	1350
	Minimum	190	300
TAPE	Maximum	1060	—
	Minimum	240	270
F.F.	—	280	—
REW	—	280	—

*Units in mA.

The above values may differ slightly depending on individual sets.

Measuring conditions (standard inputs)**Radio**

MW: 5 mV, 400 Hz, 30% mod.

FM: 1 mV, 400 Hz, 30% mod.

Tape Recorder

Recording: 1 mV, 1 kHz at mic input

Playback: Test tape MTT-112 (333 Hz, 250 pwb/mm)

7. SERVICE GUIDE

1. Battery voltage

Many customers often determine that the set is faulty when malfunctioning as they are not aware of used-up battery. Before operation, therefore, make certain that the battery voltage is higher than 9 V.

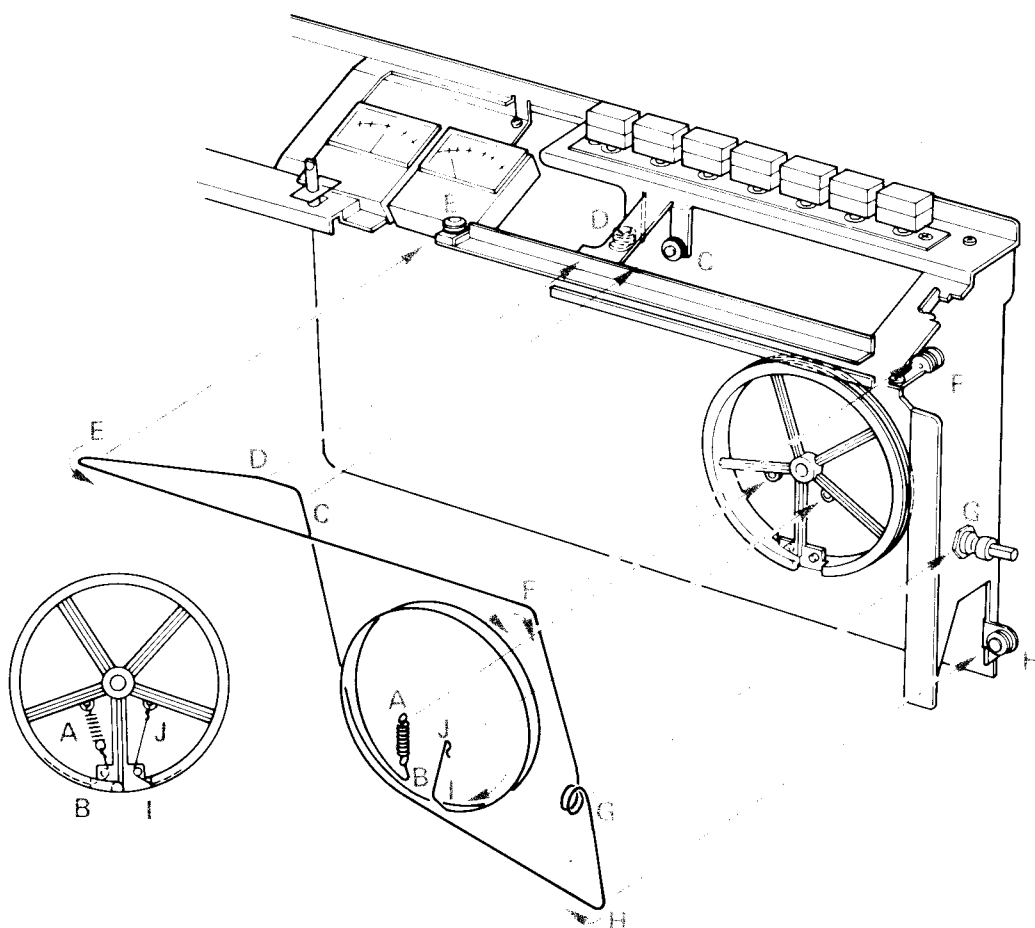
2. Battery polarity

In loading the battery, particular care should be taken in its polarity as wrong placing may damage transistors and motor.

3. Cleaning the heads

The head slit contaminated with tape chips and powder, rubber, dust, or dirt leads to insufficient sound volume and tone deterioration. Wipe such contaminants off the slit using soft cloth moistened with alcohol or carbon tetrachloride.

8. DIAL STRINGING PROCEDURES



9. ALIGNMENT PROCEDURES

9.1 MW ALIGNMENT PROCEDURES

(FUNCTION switch in "MW".)

Step	Connect Signal Generator to:	Set Signal Frequency to:	Set Tuning Dial to:	Indicator Connection	Adjust:	Procedure
1	TP-5.	455 kHz with ± 35 kHz sweep.	—	Oscilloscope vertical connector to TP-6 thru diode.	L109, L115, and L116.	Adjust inductors for highest and symmetric curve.
2	Indirect coupling near set antenna coil.	515 kHz with modulation.	515 kHz (max. capacitance).	VTVM across speaker voice coil.	L113 (OSC coil).	Adjust for max. output.
3		1650 kHz with modulation.	1650 kHz (min. capacitance).		C158 (trimmer).	
4	Repeat Steps 2 and 3.					
5	Indirect coupling near set antenna coil.	600 kHz with modulation.	600 kHz.	VTVM across speaker voice coil.	L112 (antenna coil).	Adjust for max. output.
6		1400 kHz with modulation.	1400 kHz.		CT-1 (trimmer).	
7	Repeat Steps 5 and 6.					

Note:

1. In adjustment, connect the signal generator grounding terminal (—) to that of the set.
2. Modulate the signal generator to 30% with a 400 Hz signal.
3. Reduce the signal generator as low as possible.
4. Set the VOLUME control for the maximum level.

9.2 SW ALIGNMENT PROCEDURES

(FUNCTION switch in "SW")

Step	Connect Signal Generator to:	Set Signal Frequency to:	Set Tuning Dial to:	Indicator Connection	Adjust:	Procedure
1	Indirect coupling near set antenna coil.	5.7 MHz with modulation.	5.7 MHz (max. capacitance).	VTVM across speaker voice coil.	L114 (OSC coil).	Adjust for max. output.
2		18.5 MHz with modulation.	18.5 MHz (min. capacitance).		C159 (trimmer).	
3		Repeat Steps 1 and 2.				
4		7 MHz with modulation	7 MHz	VTVM across speaker voice coil.	L112 (antenna coil).	Adjust for max. output
5		18.5 MHz with modulation	18.5 MHz		CT-4 (trimmer).	
6	Repeat Steps 4 and 5.					

Note:

1. In adjustment, connect the signal generator grounding terminal (—) to that of the set.
2. Modulate the signal generator to 30% with a 400 Hz signal.
3. Reduce the signal generator as low as possible.
4. Set the VOLUME control for the maximum level.

9.3 FM ALIGNMENT PROCEDURE

(FUNCTION switch in "FM" and MODE switch in "MONO".)

Step	Connect Signal Generator to:	Set Signal Frequency to:	Set Tuning Dial to:	Indicator Connection	Adjust:	Procedure
1	TP-1.	10.7 MHz sweep.	—	Oscilloscope vertical connector to TP-4 thru diode	L104, L108, and L110.	Adjust inductor for highest and symmetric curve.
2				Oscilloscope vertical connector to TP-2 thru diode.	L111.	Adjust inductor for symmetric curve around 10.7 MHz.
3	TP-7.	87 MHz with modulation.	87 MHz (max. capacitance).	VTVM across speaker voice coil.	L106 (OSC coil).	Adjust for max. output.
4		109 MHz with modulation.	109 MHz (min. capacitance).		CT-2 (trimmer).	
5	Repeat Steps 3 and 4.					
6	TP-7.	90 MHz with modulation.	90 MHz.	VTVM across speaker voice coil.	L102.	Adjust for max. output.
7		106 MHz with modulation.	106 MHz.		CT-3 (trimmer).	
8	Repeat Steps 6 and 7.					

NOTE:

1. In adjustment, connect the signal generator grounding terminal (—) to that of the set.
2. Modulate the signal generator to 30% with a 400 Hz signal.
3. Reduce the signal generator as low as possible.
4. Set the VOLUME control for the maximum level.

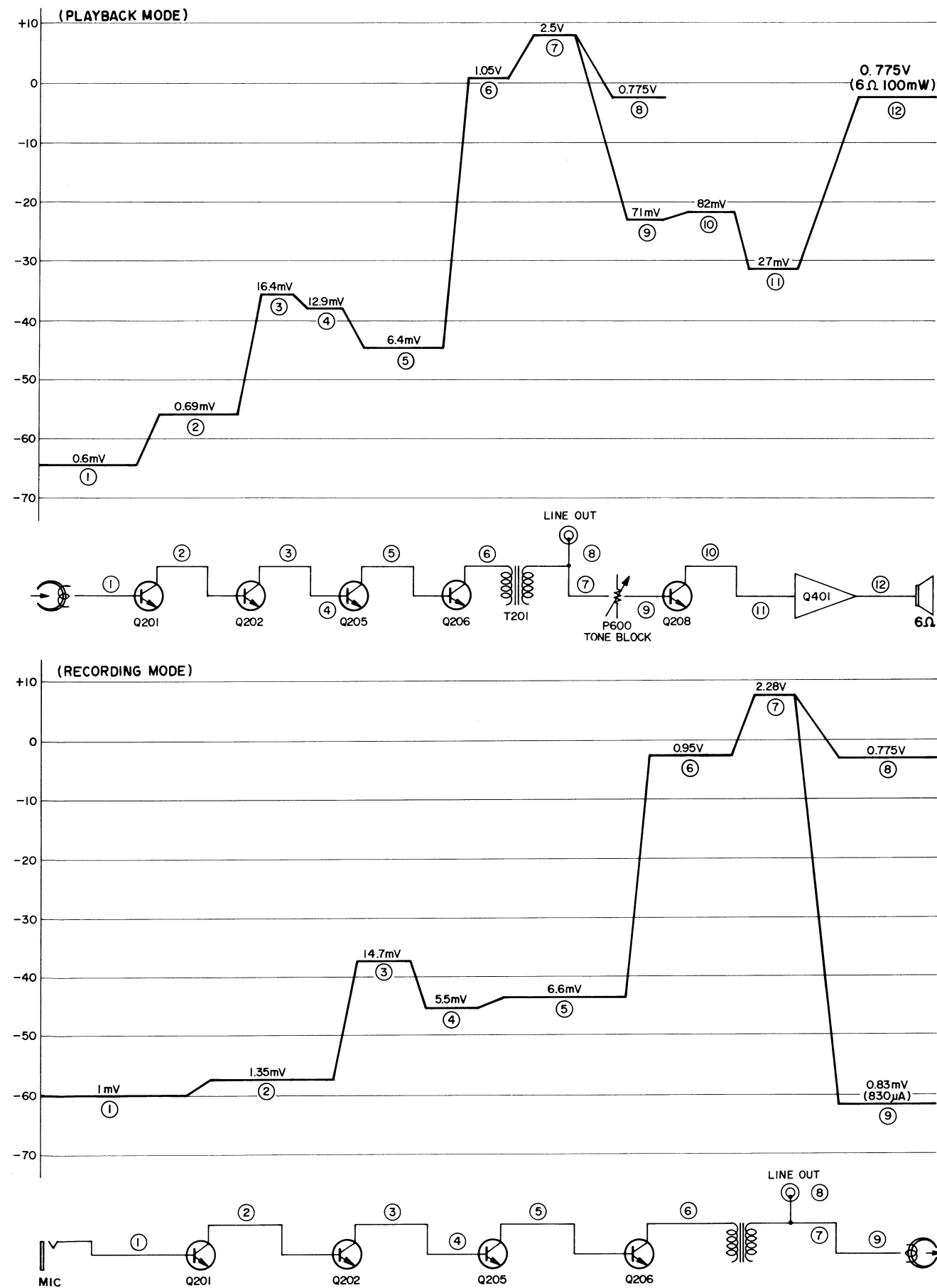
9.4 FM STEREO SEPARATION ALIGNMENT PROCEDURE

(FUNCTION switch in "FM" and MODE switch in "STEREO".)

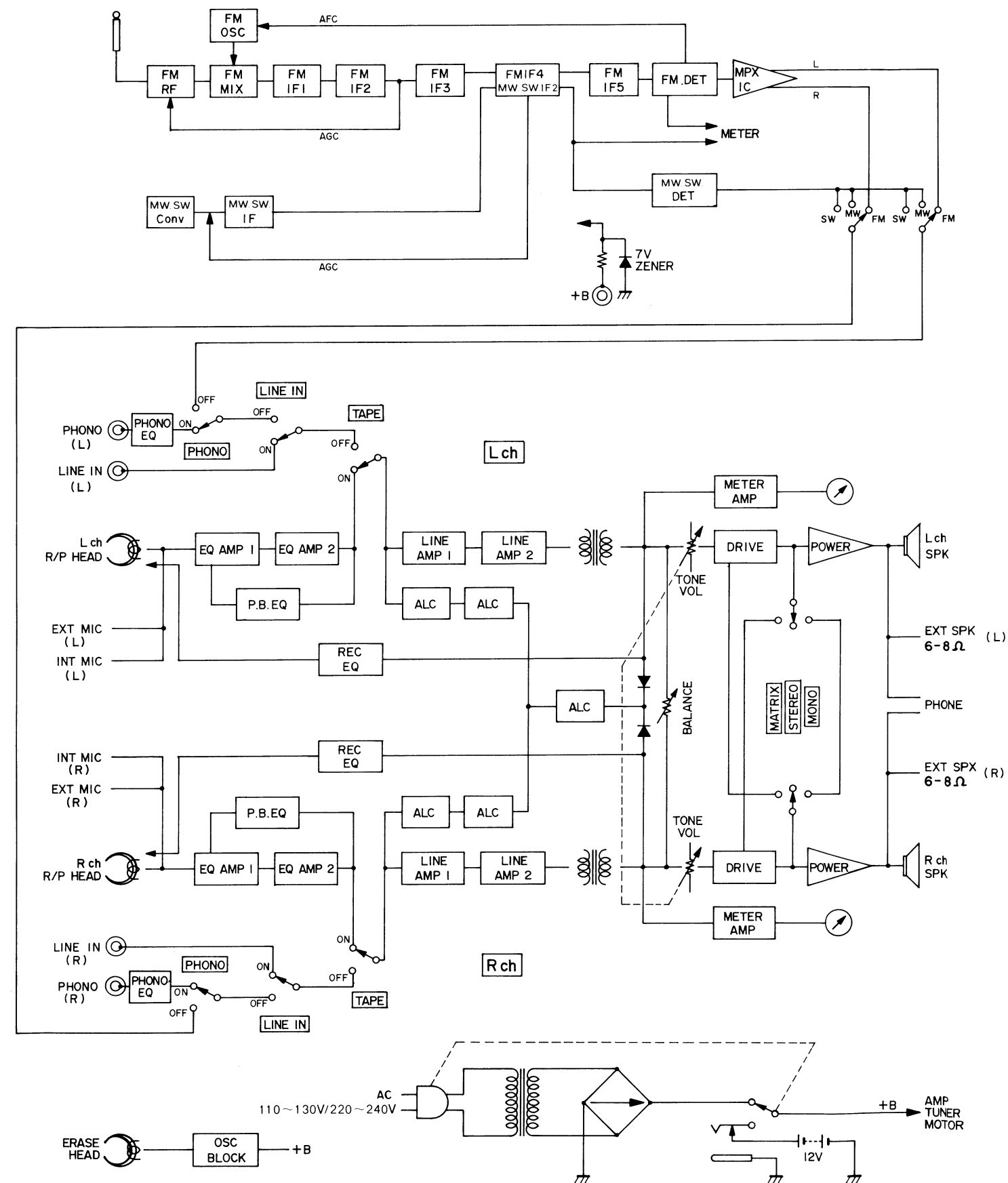
Step	Connect Signal Generator to:	Set Signal Frequency to:	Set Tuning Dial to:	Indicator Connection	Adjust:	Procedure
1	98 MHz to TP-7.	Pilot (19 kHz).	98 MHz.	VTVM or oscilloscope to TP-3.	L117.	Adjust inductor for max. output.
2		STEREO SSG SUB Signal.		VTVM to LINE OUTPUT jack.	L118.	Adjust inductor for max. output or least distortion.
3		L channel			R-174.	Adjust semifixed resistor for min. output in R channel.
4		R channel				Adjust semifixed resistor for min. output in L channel.
5	Repeat Steps 3 and 4.					

10. DIAGRAMS

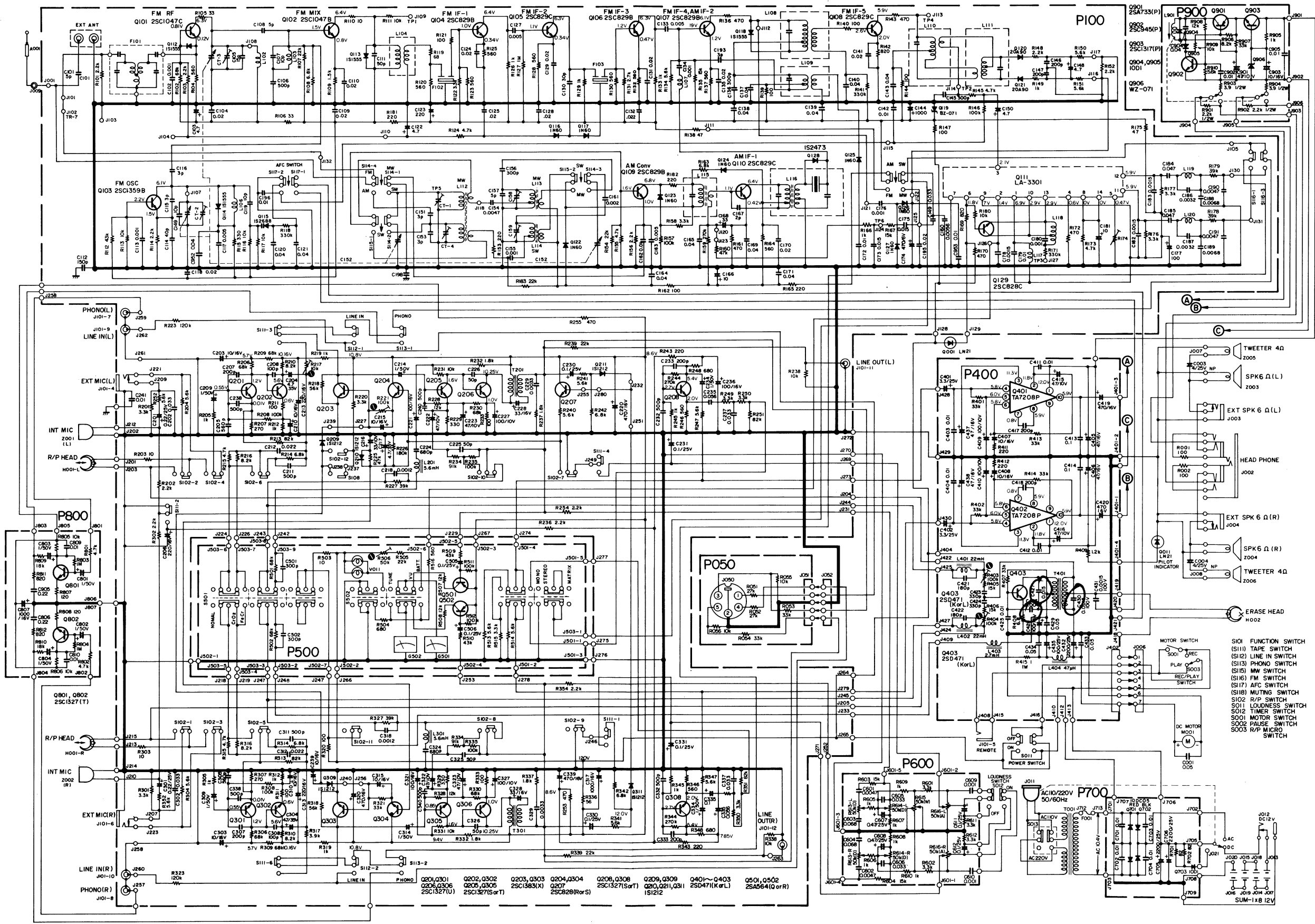
10.1 LEVEL DIAGRAMS

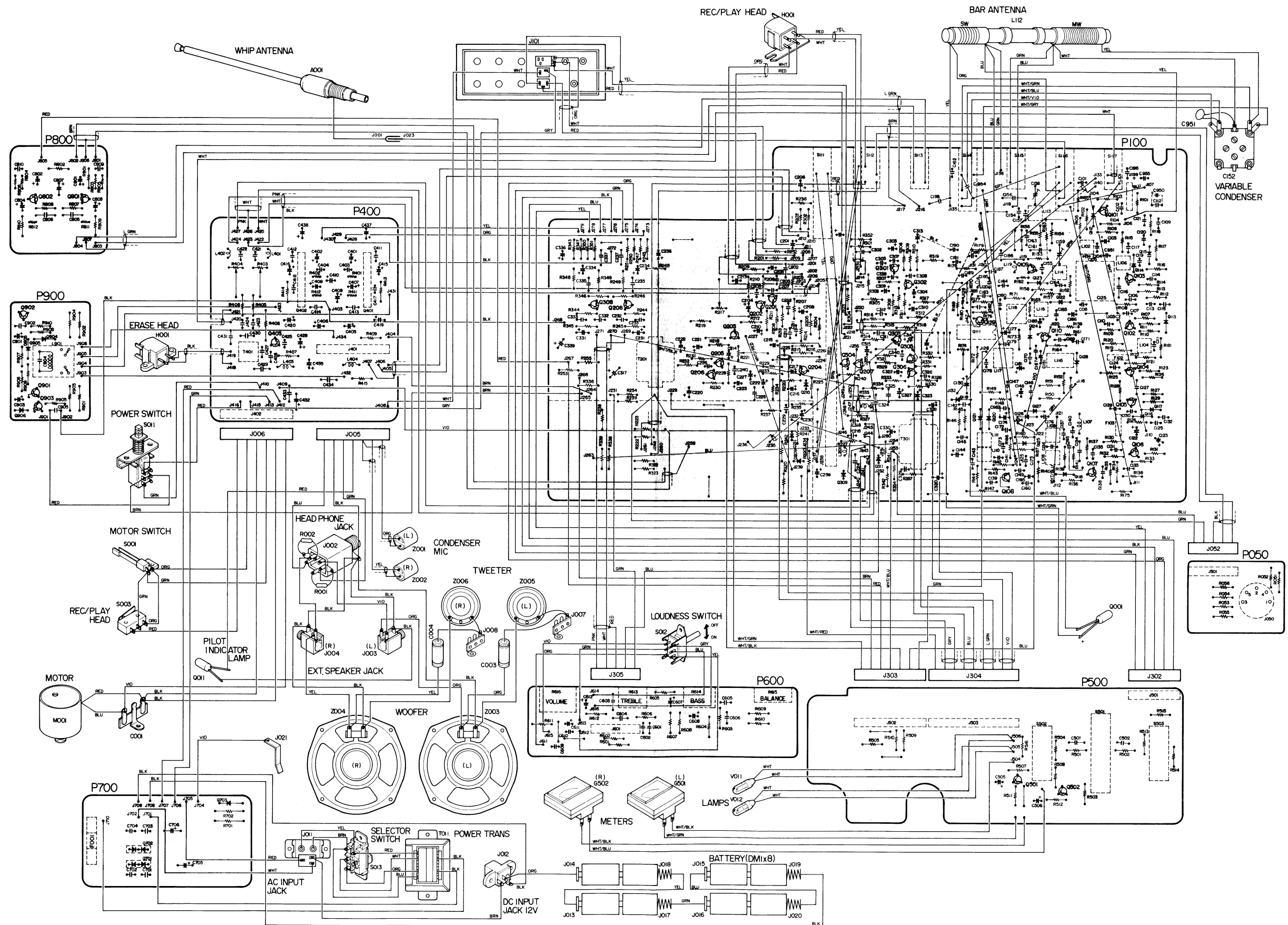


10.2 BLOCK DIAGRAM

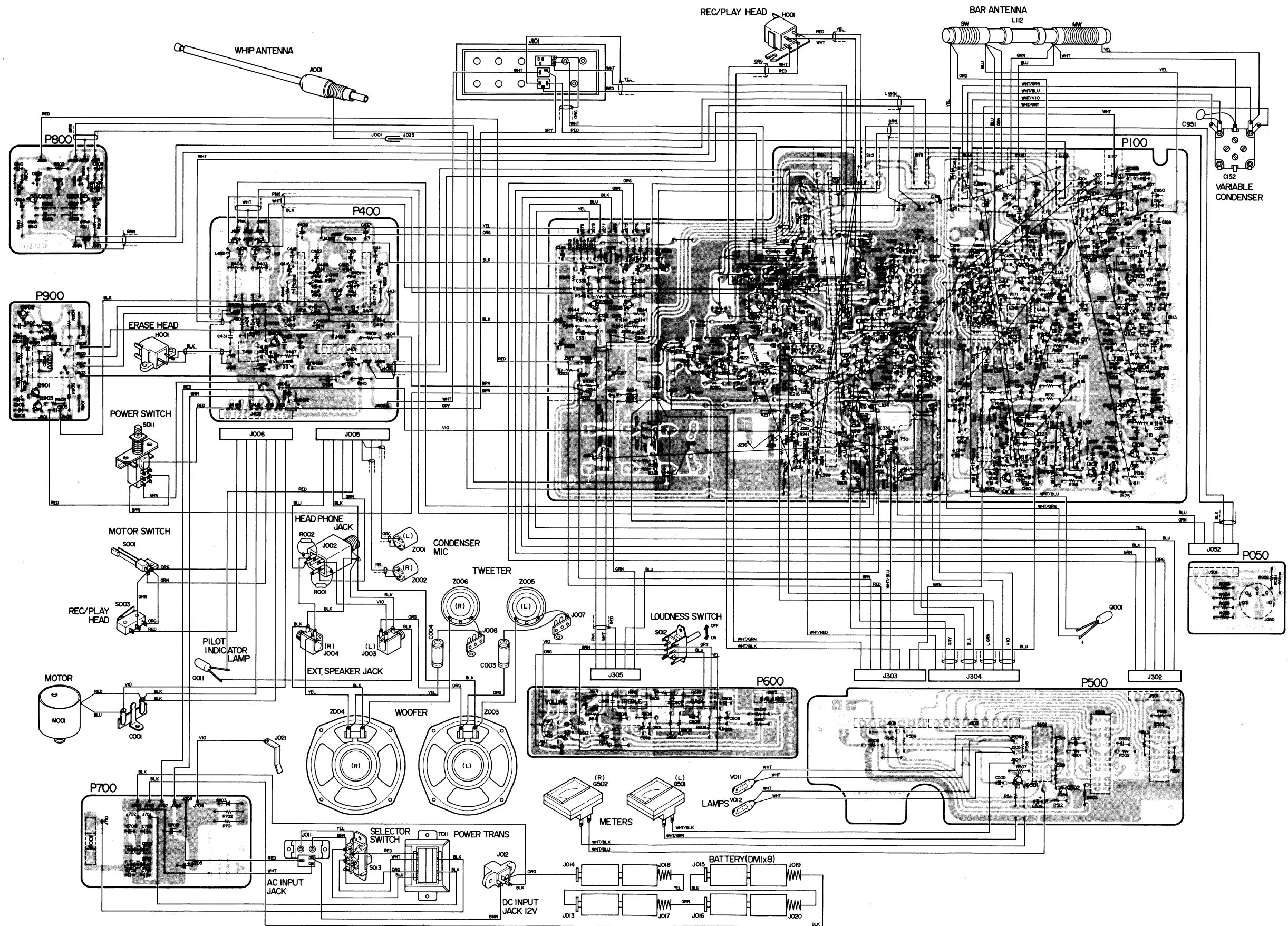


10.3 SCHEMATIC DIAGRAM



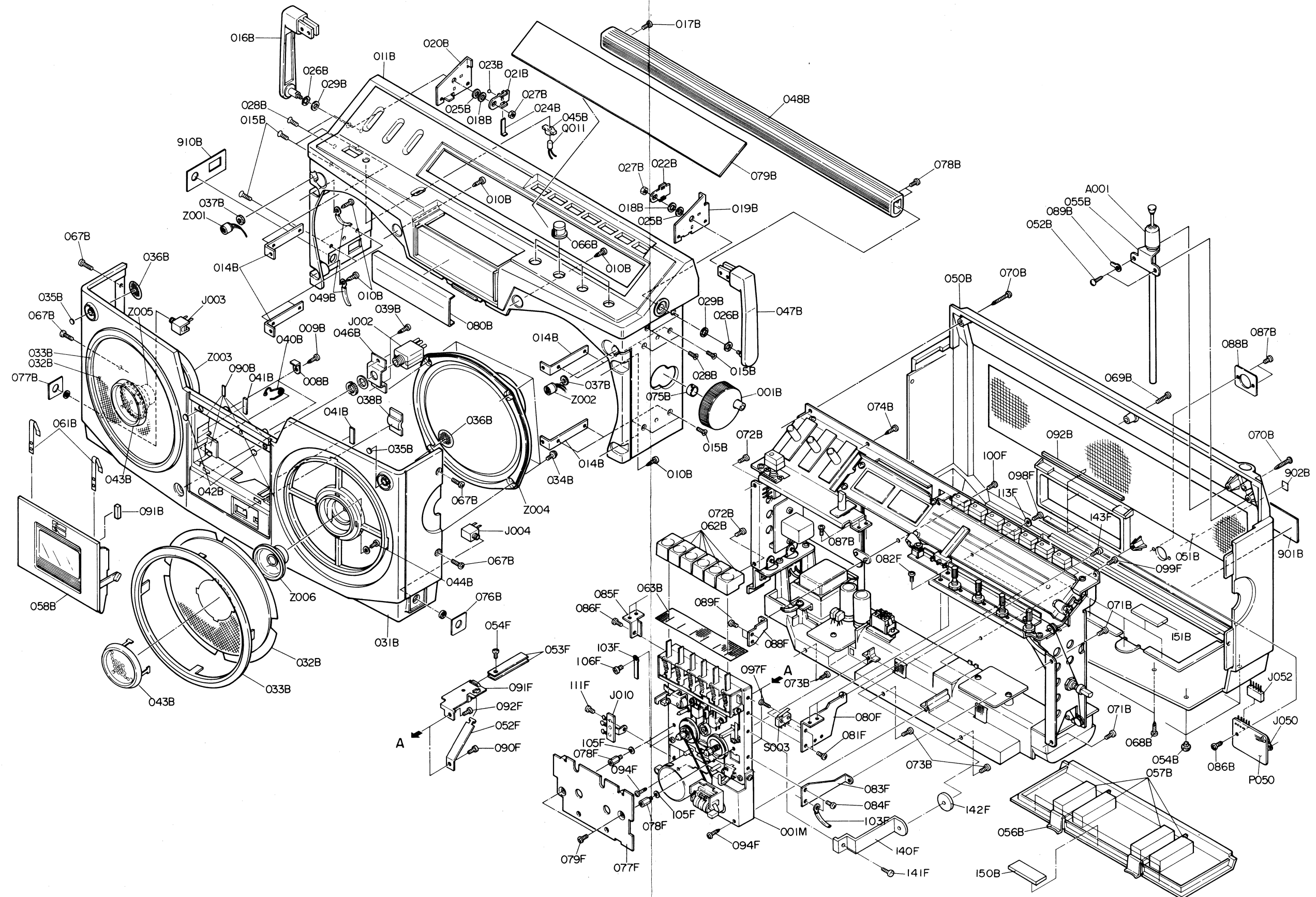


10.4 CIRCUIT BOARD DIAGRAM

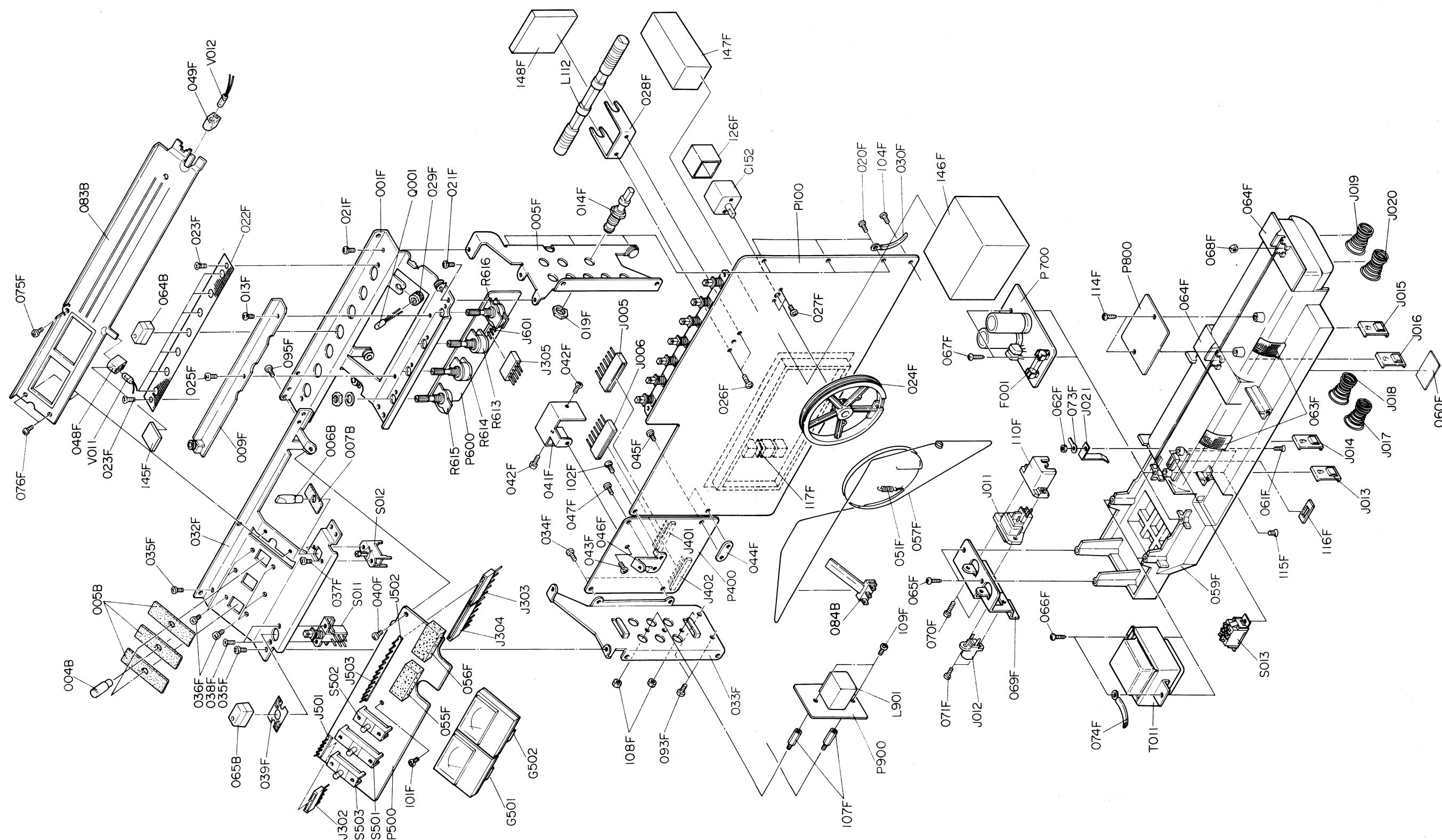


11. EXPLODED VIEWS

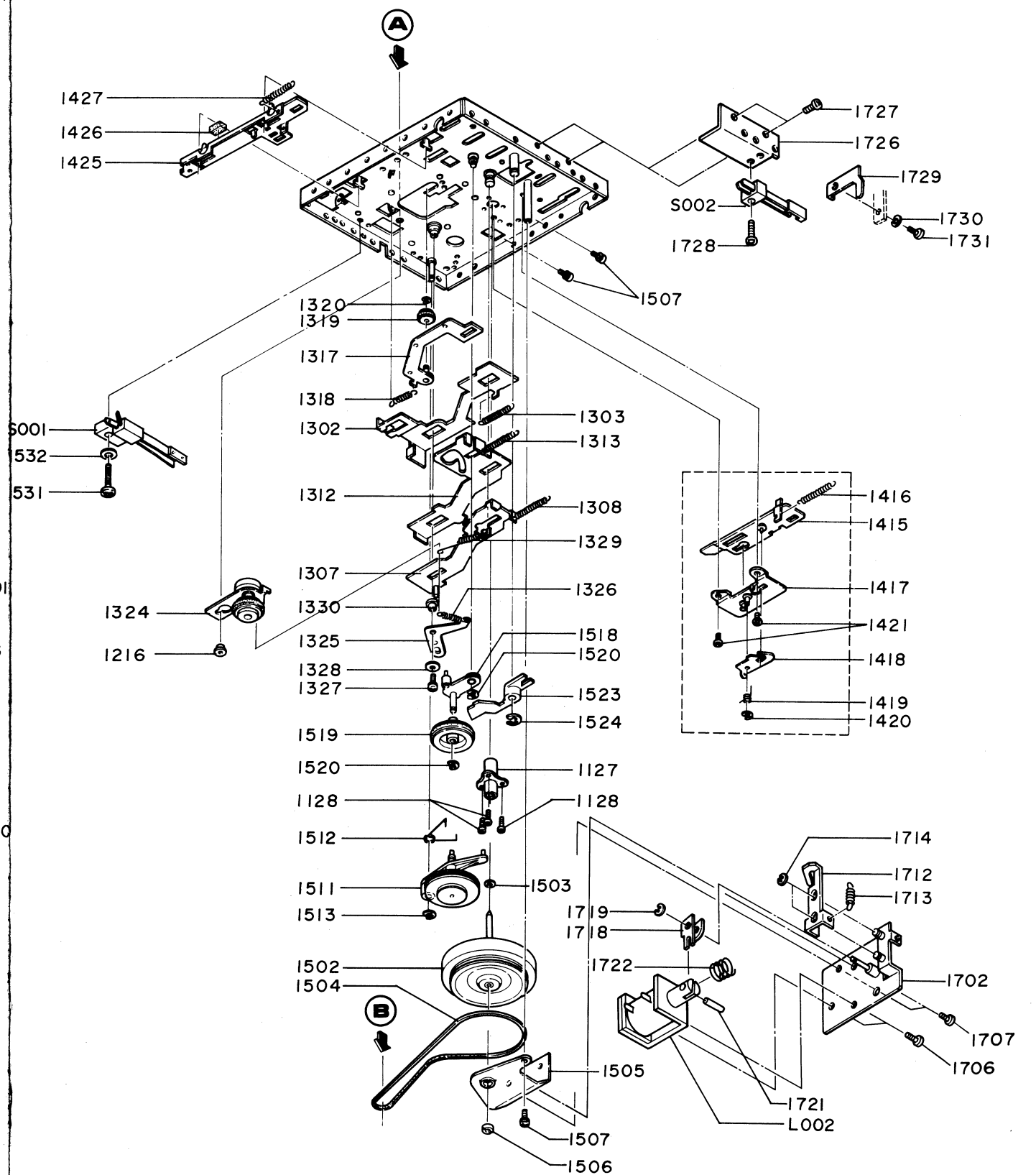
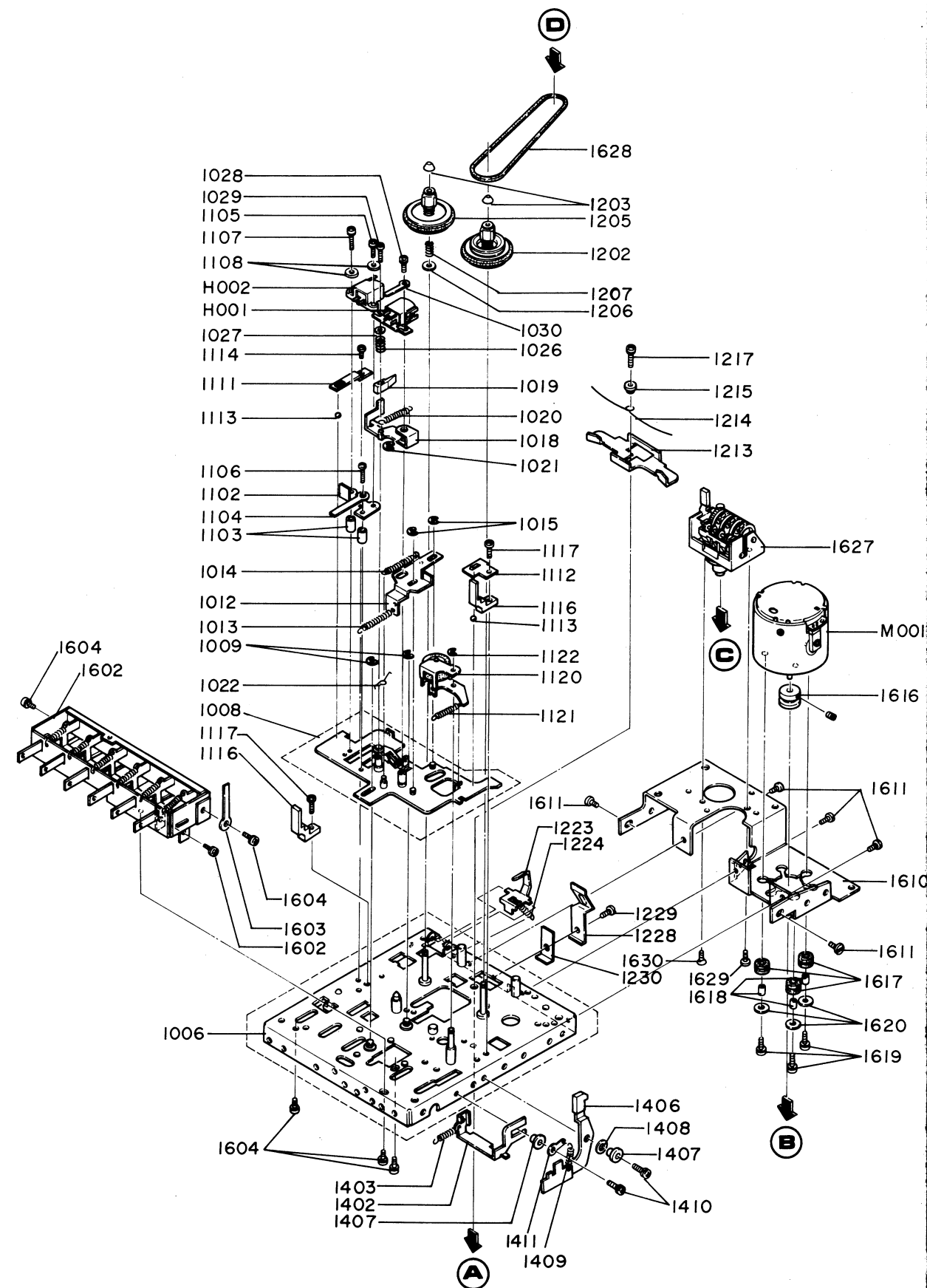
11.1 CABINET EXPLODED VIEW



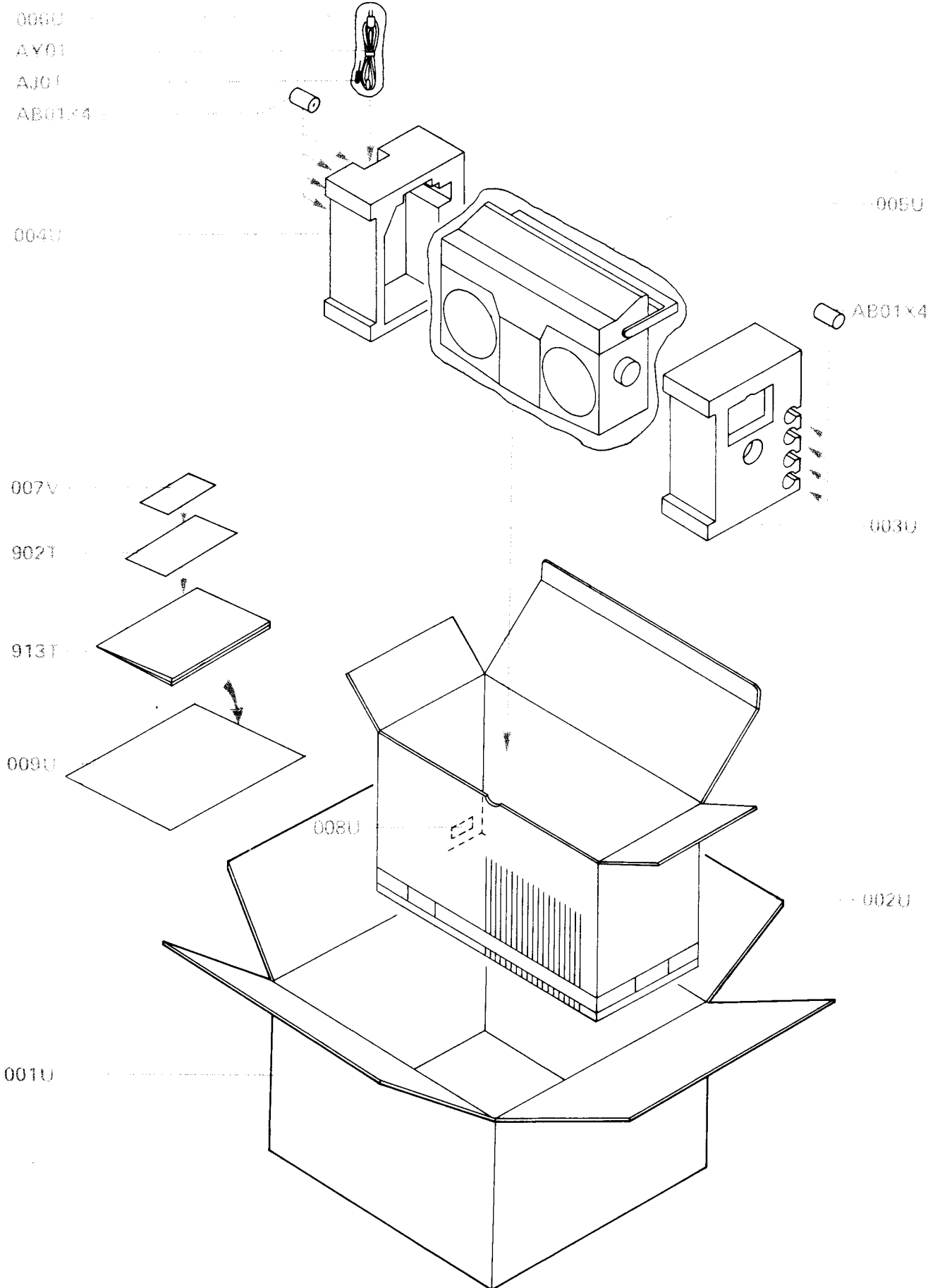
11.2 TUNER ASSEMBLY EXPLODED VIEW



11.3 TAPE RECORDER MECHANICAL EXPLODED VIEW



11.4 PACKING MATERIAL EXPLODED VIEW



12. PARTS LIST

REF. DESIG.	Q'TY	PART NO.	DESCRIPTION	REF. DESIG.	Q'TY	PART NO.	DESCRIPTION
*	1	4182064400	Case Assembly, Incl. A, B, C, D, E	061F	1	51040205S0	F.H.M. Screw, F2 x 5
*	1	4182064410	Case Assembly, Incl. A, B, C	062F	1	53110203A0	Nut
A	1	4182064420	Case Assembly, Upper	063F	2	3397007010	Strip
011B	1	4183064010	Case	064F	2	4123053012	Cover
014B	4	4123160030	Bracket	068F	1	53110303A9	Nut
015B	8	51040306A9	F.H.M. Screw, F3 x 6	073F	1	62021030W0	Lug
016B	1	4123104012	Retainer	J013	1	YL12010710	Terminal (+)
017B	2	51100306S9	B.H.M. Screw, B3 x 6	J014	1	YL12010710	Terminal (+)
018B	2	54060600A0	T.L. Washer	J015	1	YL12010710	Terminal (+)
019B	1	4123160052	Bracket	J016	1	YL12010710	Terminal (+)
020B	1	4123160062	Bracket	J017	1	YL11010090	Terminal (—)
021B	1	4123002012	Arm	J018	1	YL11010090	Terminal (—)
022B	1	4123002022	Arm	J019	1	YL11010090	Terminal (—)
023B	1	61030010T0	Ball	J020	1	YL11010090	Terminal (—)
024B	1	4123115020	Spring	J021	1	YL14010150	Terminal
025B	2	59061405G9	Washer				
026B	2	54130600Q0	Wave Washer				MECHANICAL PARTS
027B	2	53110603A9	Nut	001B	1	4136154503	Knob
028B	4	54040303A9	F.H.M. Screw, F3 x 3	001F	1	4123105502	Chassis
029B	2	59061405G9	Washer	001M	1	4183304013	Mechanism
037B	2	4123107032	Sheet	004B	3	4123154010	Knob
047B	1	4123104012	Retainer	005B	3	4123303010	Mask
048B	1	4123253010	Handle	005F	1	4123160502	Bracket
078B	2	51100306S9	B.H.M. Screw, B3 x 6	006B	1	4123154022	Knob
079B	1	4123158012	Window	007B	1	4123107040	Sheet
080B	1	4182063010	Escutcheon	007V	1	4136071010	Cleaner
910B	1	4182265010	Indicator	009F	1	4123051502	Guide
B	1	4123064430	Case Assembly, Front	013F	1	51100306A9	B.H.M. Screw, B3 x 6
031B	1	4123064023	Case	014F	1	4123112502	Shaft
032B	2	4123202012	Net	019F	1	53111045A0	Hexagon Nut
033B	2	4123353012	Ring	020F	3	51100306A9	B.H.M. Screw, B3 x 6
035B	2	3484063050	Escutcheon	021F	2	51100306A9	B.H.M. Screw, B3 x 6
036B	2	4123107012	Sheet	022F	1	4123107050	Sheet
038B	1	4123158032	Window	023F	2	51040306S9	F.H.M. Screw, F3 x 6
041B	2	3426056020	Buffer	024F	1	4123159010	Drum
042B	2	3411056020	Buffer	025F	1	51100306A9	B.H.M. Screw, B3 x 6
090B	4	3370107070	Sheet	026F	2	51100306A9	B.H.M. Screw, B3 x 6
C	1	4123064490	Case Assembly	027F	2	51102605A0	B.H.M. Screw, B2.6 x 5
008B	2	4123104060	Retainer	028F	1	4123271012	Holder
009B	2	51280308B0	B.H. Tapped Screw, B3 x 8ST	029F	1	4123259020	Bushing
010B	6	51280310B0	B.H. Tapped Screw, B3 x 10ST	030F	1	1382005030	Clamper
Z001	1	MS50090050	Microphone	032F	1	4123105020	Chassis
Z002	1	MS50090050	Microphone	033F	1	4123160022	Bracket
D	1	4182257400	Lid Assembly, Bottom	034B	8	51480306A9	F. Washer Screw
050B	1	4123257030	Lid	034F	2	51100306A9	B.H.M. Screw, B3 x 6
051B	1	4123107022	Sheet	035F	2	51100304A9	B.H.M. Screw, B3 x 4
054B	4	3441057010	Leg	036F	6	51102604A0	B.H.M. Screw, B2.6 x 4
092B	1	4123056020	Buffer	037F	2	51102604A0	B.H.M. Screw, B2.6 x 4
901B	1	4182265020	Indicator	038F	2	51040306S9	F.H.M. Screw, F3 x 6
151B	5	4123107070	Sheet	039B	2	51280308B0	B.H. Tapped Screw, B3 x 8ST
E	1	4123257410	Lid Assembly, Battery	039F	1	4123107060	Sheet
056B	1	4123257022	Lid	040B	1	3435115013	Spring
057B	4	4123118010	Spacer	040F	1	51100306A9	B.H.M. Screw, B3 x 6
150B	3	4123107070	Sheet	041F	1	4123267012	Heatsink
F	1	4183064440	Case Assembly, Cassette	042F	2	51100306A9	B.H.M. Screw, B3 x 6
058B	1	4183064500	Case	043B	2	4123353020	Ring
061B	2	3320115042	Spring	043F	1	51100306A9	B.H.M. Screw, B3 x 6
091B	1	3426056020	Buffer	044B	2	51480306A9	F. Washer Screw
G	1	4123064450	Case Assembly, Battery	044F	1	4123121010	Link
059F	1	4123064044	Case	045B	1	4123271030	Holder
				045F	2	51100306A9	B.H.M. Screw, B3 x 6
				046B	1	4123160120	Bracket

REF. DESIG.	Q'TY	PART NO.	DESCRIPTION
046F	1	4123160092	Bracket
047F	1	51100306A9	B.H.M. Screw, B3 x 6
048F	1	4123259010	Bushing
049B	2	1210005010	Clamper
049F	1	4123259010	Bushing
051F	1	4123115030	Spring
052B	2	51280308B0	B.H. Tapped Screw, B3 x 8ST
052F	1	4123104090	Retainer
053F	2	4123104020	Spring
054F	1	51100306A9	B.H.M. Screw, B3 x 6
055B	1	5123104020	Retainer
055F	1	3397056020	Buffer
056F	1	3397056020	Buffer
057F	150	72071605A0	String
058F	1	4170053020	Cover
060F	1	3397861020	Label
062B	6	4136270012	Button
063B	1	4136107050	Sheet
064B	7	4123270010	Button
065B	1	4123270020	Button
065F	2	51280308B0	B.H. Tapped Screw, B3 x 8ST
066B	4	4123154033	Knob
066F	2	51280308B0	B.H. Tapped Screw, B3 x 8ST
067B	4	51100314S9	B.H.M. Screw, B3 x 14
067F	2	51280308B0	B.H. Tapped Screw, B3 x 8ST
068B	2	51280310U0	B.H. Tapped Screw, B3 x 10ST
069B	1	51100314S9	B.H.M. Screw, B3 x 14
069F	1	4123160070	Bracket
070B	2	51280320U0	B.H. Tapped Screw, B3 x 20ST
070F	2	51102610A0	B.H.M. Screw, B2.6 x 10
071B	2	51590306B0	B. Tapped Screw, B3 x 6ST
071F	2	51100205A0	B.H.M. Screw, B2 x 5
072B	2	51590306B0	B. Tapped Screw, B3 x 6ST
073B	3	51480308A9	F. Washer Screw
074B	1	51280308B0	B.H. Tapped Screw, B3 x 8ST
074F	1	1382005030	Clamper
075B	1	71400159Q0	Spring
075F	1	51102606S0	B.H.M. Screw, B2.6 x 6
076B	1	4183265050	Indicator
076F	2	51100306S9	B.H.M. Screw, B3 x 6
077B	1	4183265060	Indicator
077F	1	4123163010	Tray
078F	2	4123101010	Support
079F	2	51102605B0	B.H.M. Screw, B2.6 x 5
080F	1	4123160102	Bracket
081F	2	51570306B0	P. Tapped Screw, P3 x 6ST
082F	2	51100306A9	B.H.M. Screw, B3 x 6
083B	1	4182302010	Dial
083F	1	4123104040	Retainer
084B	1	4123103012	Pointer
084F	2	51570306B0	P. Tapped Screw, B3 x 6ST
085F	1	4123160080	Bracket
086B	1	51280308B0	B.H. Tapped Screw, B3 x 8ST
086F	1	51570306B0	P. Tapped Screw, P3 x 6ST
087B	2	51100308S9	B.H.M. Screw, B3 x 8
087F	2	51100306A9	B.H.M. Screw, B3 x 6
088B	1	4182265030	Indicator
088F	1	4183104010	Retainer
089B	1	62030039W0	Lug
089F	1	51442605A0	L. Washer Screw
090F	1	51102604A0	B.H.M. Screw, B2.6 x 4
091F	1	4123104072	Retainer
092F	1	51062604A0	P.H.M. Screw, P2.6 x 4

REF. DESIG.	Q'TY	PART NO.	DESCRIPTION
093F	2	51100306A9	B.H.M. Screw, B3 x 6
094F	2	51280308B0	B.H. Tapped Screw, B3 x 8ST
095F	1	51100306A9	B.H.M. Screw, B3 x 6
096F	1	51100306A9	B.H.M. Screw, B3 x 6
097F	2	51100210A0	B.H.M. Screw, B2 x 10
098F	1	51100306A9	B.H.M. Screw, B3 x 6
099F	1	51100306A9	B.H.M. Screw, B3 x 6
100F	1	51100306A9	B.H.M. Screw, B3 x 6
1006	1	4113105700	Chassis
1008	1	4113105710	Chassis
1009	2	64002500R0	RG Ring, "E"
101F	1	51100306A9	B.H.M. Screw, B3 x 6
1012	1	3435354200	Lever
1013	1	3435115360	Spring
1014	1	3435115212	Spring
1015	2	64002500R0	RG Ring, "E"
1018	1	4113002060	Arm
1019	1	3435123010	Contacto
102F	1	51100306A9	B.H.M. Screw, B3 x 6
1020	1	3435115220	Spring
1021	1	64000300R0	RG Ring, "E"
1022	1	3435115230	Spring
1026	1	3435115200	Spring
1027	1	3444118070	Spacer
1028	1	51440204A0	L.Washer Screw
1029	1	51100205A0	B.H.M. Screw, B2 x 5
103F	2	1382005030	Clamper
1030	1	3435005060	Clamper
104F	1	51100310A9	B.H.M. Screw, B3 x 10
105F	2	54042602A0	Spring Washer
106F	1	51102604A0	B.H.M. Screw, B2.6 x 4
107F	2	4123101010	Support
108F	2	53112603A0	Hexagon Nut
109F	2	51102605A0	B.H.M. Screw, B2.6 x 5
110F	1	3370053010	Cover
1102	1	3435160300	Bracket
1103	2	4113101030	Support
1104	1	3435005060	Clamper
1105	1	51100205A0	B.H.M. Screw, B2 x 5
1106	1	51100212A0	B.H.M. Screw, B2 x 12
1107	1	51100214A0	B.H.M. Screw, B2 x 14
1108	2	54020200E0	Fiat Washer P
111F	1	51060304A9	P.H.M. Screw, P3 x 4
1111	1	3435115260	Spring
1112	1	3435115270	Spring
1113	2	61020010T0	Ball
1114	1	51062603A0	P.H.M. Screw, P2.6 x 3
1116	2	4113051020	Guide
1117	2	51062605A0	P.H.M. Screw, P2.6 x 5
1120	1	4113255500	Pinch Roller
1121	1	3435115242	Spring
1122	1	64000200R0	RG Ring, "E"
1127	1	3435106040	Sustainer
1128	3	51060205A0	P.H.M. Screw, P2 x 5
113F	1	59030810P0	Washer
114F	2	51280308B0	B.H. Tapped Screw, B3 x 8ST
115F	2	51040312A9	F.H.M. Screw, F3 x 12
116F	1	4174265020	Indicator
117F	1	3435118010	Spacer
119F	1	62030039W0	Lug
120F	1	51472606A0	L. Washer Screw
121F	1	54022601E0	Fiat Washer P
126F	1	4182056010	Buffer

REF. DESIG.	Q'TY	PART NO.	DESCRIPTION	REF. DESIG.	Q'TY	PART NO.	DESCRIPTION
140F	1	4182104010	Retainer	1507	3	51442605A0	L. Washer Screw
141F	1	51570306B0	P. Tapped Screw, P3 x 6ST	1511	1	3435001700	Idler
142F	1	59030805P0	Washer	1512	1	3435115620	Spring
143F	1	51100306A9	B.H.M. Screw, B3 x 6	1513	1	64002500R0	RG Ring, "E"
145F	1	4123107080	Sheet	1518	1	3435002700	Arm
146F	1	4123056030	Buffer	1519	1	3435001030	Idler
147F	1	4123056040	Buffer	1520	2	64002500R0	RG Ring, "E"
148F	1	4182056020	Buffer	1523	1	3435002100	Arm
1202	1	4113004500	Table	1524	1	64000400R0	RG Ring, "E"
1203	2	3435067100	Cap	1602	1	3435354520	Lever
1205	1	4113004510	Table	1603	1	3435005070	Clamper
1206	1	59060902G9	Washer	1604	5	51442604A0	L. Washer Screw
1207	1	3435115610	Spring	1610	1	3435160310	Bracket
1213	1	3435002120	Arm	1611	5	51570305A0	P. Tapped Screw, P3 x 5ST
1214	1	3435115290	Spring	1616	1	4136262010	Pulley
1215	1	3435055020	Collar	1617	3	3435056010	Buffer
1216	1	3435259020	Bushing	1618	3	3435055010	Collar
1217	1	51442608A0	L. Washer Screw	1619	3	51442608A0	L. Washer Screw
1223	1	4113354090	Lever	1620	3	54022600E0	Flat Washer P
1224	1	3435115600	Spring	1627	1	4123052010	Counter
1228	1	4136115100	Spring	1628	1	3435264020	Belt
1229	1	51570305A0	P. Tapped Screw, P3 x 5ST	1629	1	51060305A9	P.H.M. Screw, P3 x 5
1302	1	3435354230	Lever	1630	1	51040305A9	F.H.M. Screw, F3 x 5
1303	1	3435115340	Spring	900T	1	9560000090	Hang Tag
1307	1	3435002720	Arm				
1308	1	3435115370	Spring				ELECTRICAL PARTS
1312	1	3435354240	Lever	A001	1	YR06100010	Whip Antenna
1313	1	3435115380	Spring	C001	1	DK18503010	Capacitor, Ceramic, 0.05 μ F 50V
1317	1	3435002710	Arm	C003	1	ER40502510	Capacitor, Electrolytic, 4 μ F 25V Non-Poler
1318	1	3435115330	Spring	C004	1	ER40502510	Capacitor, Electrolytic, 4 μ F 25V Non-Poler
1319	1	3435001050	Idler	F001	1	FS10150030	Fuse 1.5A
1320	1	64001500R0	RG Ring, "E"	H001	1	LH42851010	Head, Rec/Play
1324	1	3435001710	Idler	H002	1	LH31000400	Head, Erase
1325	1	3435002130	Arm	J001	1	YB00100023	Connective Cord
1326	1	3435115320	Spring	J002	1	YJ01000960	Jack, Headphone
1327	1	51442606A0	L. Washer Screw	J003	1	YJ01000660	Jack, External Speaker
1328	1	54022600E0	Flat Washer P	J004	1	YJ01000660	Jack, External Speaker
1329	1	3435115350	Spring	J005	1	YJ06001060	Jack, 7P Spk. Connector
1330	1	3435055030	Collar	J006	1	YJ06001060	Jack, 7P Mecha. Connector
1402	1	3435354220	Lever	J007	1	YL01030150	Terminal
1403	1	3435115300	Spring	J008	1	YL01030150	Terminal
1404	1	51440204A0	L. Washer Screw	J010	1	YL01030210	Terminal
1406	1	3435354210	Lever	J011	1	YJ04000500	Jack, AC
1407	2	3435259010	Bushing	J012	1	YJ04000550	Jack, DC
1408	1	3435115280	Spring	J023	1	YP10000390	Plug, Antenna
1409	1	3435115310	Spring	J050	1	YJ11000170	DIN Jack
1410	2	51442606A0	L. Washer Screw	J051	1	YP06000580	Plug, Terminal 5P
1411	1	62261240W0	Lug	J052	1	YJ06001050	DIN Jack, 5P
1415	1	3435354270	Lever	M001	1	MM11200060	D.C Motor 12V
1416	1	3435115640	Spring	P050	1	YK41231220	P.W. Board, DIN (Print only)
1417	1	3435160700	Bracket			ZZ41828220	P.W. Board, Assembly
1418	1	4123054010	Cam	Q001	1	HI10003020	L.E.D. MPX
1419	1	3435115630	Spring	Q011	1	HI10003020	L.E.D. Power Indicator
1420	1	64002500R0	RG Ring, "E"	R001	1	RT05101140	Resistor, Fixed, 100 Ω $\pm$ 5%, $\frac{1}{4}$ W
1421	2	51062603A0	P.H.M. Screw, P2.6 x 3	R002	1	RT05101140	Resistor, Fixed, 100 Ω $\pm$ 5%, $\frac{1}{4}$ W
1425	1	3435354250	Lever	R051	1	GD05273140	Resistor, Fixed, 27k Ω $\pm$ 5%, $\frac{1}{4}$ W
1426	1	3435056020	Buffer	R052	1	GD05273140	Resistor, Fixed, 27k Ω $\pm$ 5%, $\frac{1}{4}$ W
1427	1	3435115390	Spring	R053	1	GD05333140	Resistor, Fixed, 33k Ω $\pm$ 5%, $\frac{1}{4}$ W
1502	1	4113273500	Flywheel				
1503	1	59254602G9	Washer				
1504	1	3435264010	Belt				
1505	1	4123104080	Retainer				
1506	1	3435106010	Sustainer				

REF. DESIG.	Q'TY	PART NO.	DESCRIPTION
R054	1	GD05333140	Resistor, Fixed, 33k Ω $\pm$ 5%, 1/4W
R055	1	GD05103140	Resistor, Fixed, 10k Ω $\pm$ 5%, 1/4W
R056	1	GD05103140	Resistor, Fixed, 10k Ω $\pm$ 5%, 1/4W
S001	1	SM01010670	Mini-Switch
S003	1	SC01020100	Micro-Switch, Record/Play
S011	1	SP02010310	Push Switch
S012	1	SC02020230	Lever Switch
S013	1	SS02020480	Slide Switch (110V/220V)
T011	1	TS15404030	Power Transformer
V011	1	IN10140030	Lamp
V012	1	IN10140030	Lamp
Z003	1	QK01603012	Speaker, 6 Ω
Z004	1	QK01603012	Speaker, 6 Ω
Z005	1	QK00403010	Speaker, 4 Ω , Tweeter
Z006	1	QK00403010	Speaker, 4 Ω , Tweeter
C101	1	DD12100010	Capacitor, Ceramic, 10PF $\pm$ 1PF
C102	1	DK17102010	Capacitor, Ceramic, 0.001 μ F $\pm$ 20%
C103	1	EA47503590	Capacitor, Electrolytic, 4.7 μ F+100, 0%
C104	1	DK18203030	Capacitor, Ceramic, 0.02 μ F+80%, -20%
C105	1	DD16150030	Capacitor, Ceramic, 15PF $\pm$ 10%
C106	1	DD16501010	Capacitor, Ceramic, 500PF $\pm$ 10%
C107	1	DD12100010	Capacitor, Ceramic, 10 $\pm$ 1PF
C108	1	DD11050020	Capacitor, Ceramic, 5 $\pm$ 0.05PF
C109	1	DK18203030	Capacitor, Ceramic, 0.02 μ F+80, -20%
C110	1	DK17502010	Capacitor, Ceramic, 0.005 μ F $\pm$ 20%
C111	1	DD15500070	Capacitor, Ceramic, 50PF $\pm$ 5%
C112	1	DD16151010	Capacitor, Ceramic, 150PF $\pm$ 10%
C113	1	DK17102010	Capacitor, Ceramic, 0.001 μ F $\pm$ 20%
C114	1	DD15400040	Capacitor, Ceramic, 40PF $\pm$ 5%
C115	1	DD11030010	Capacitor, Ceramic, 3PF $\pm$ 0.5PF
C116	1	DD11030010	Capacitor, Ceramic, 3PF $\pm$ 0.05PF
C117	1	DK17502010	Capacitor, Ceramic, 0.005 μ F $\pm$ 20%
C118	1	DK18203030	Capacitor, Ceramic, 0.02 μ F+80, -20%
C119	1	DD16150030	Capacitor, Ceramic, 15PF $\pm$ 1PF
C120	1	DK18403020	Capacitor, Ceramic, 0.04 μ F+80, -20%
C121	1	DK18403020	Capacitor, Ceramic, 0.04 μ F+80, -20%
C122	1	EA47503590	Capacitor, Electrolytic, 4.7 μ F+100, 0%
C123	1	EA22701090	Capacitor, Electrolytic, 220 μ F+100, 0%
C124	1	DK18203030	Capacitor, Ceramic, 0.02 μ F+80, -20%
C125	1	DK18203030	Capacitor, Ceramic, 0.02 μ F+80, -20%
C126	1	DD16150030	Capacitor, Ceramic, 15PF $\pm$ 10%
C127	1	DK17502010	Capacitor, Ceramic, 0.005 μ F $\pm$ 20%
C128	1	DK18203030	Capacitor, Ceramic, 0.02 μ F+80, -20%
C129	1	DK18203030	Capacitor, Ceramic, 0.02 μ F+80, -20%
C130	1	DD16300010	Capacitor, Ceramic, 30PF $\pm$ 10%
C131	1	DK18203030	Capacitor, Ceramic, 0.02 μ F+80, -20%
C132	1	DF16223010	Capacitor, Film, 0.022 μ F $\pm$ 10%
C133	1	DK17502010	Capacitor, Ceramic, 0.005 μ F $\pm$ 20%
C134	1	DK17102010	Capacitor, Ceramic, 0.001 μ F $\pm$ 20%
C135	1	DK18203030	Capacitor, Ceramic, 0.02 μ F+80, -20%
C136	1	DD15301020	Capacitor, Ceramic, 300PF $\pm$ 5%
C137	1	DK18403020	Capacitor, Ceramic, 0.04 μ F+80, -20%
C138	1	DK18403020	Capacitor, Ceramic, 0.04 μ F+80, -20%
C139	1	DF17403020	Capacitor, Film, 0.04 μ F $\pm$ 20%
C140	1	DK18403020	Capacitor, Ceramic, 0.04 μ F+80, -20%
C141	1	DK18203030	Capacitor, Ceramic, 0.02 μ F+80, -20%
C142	1	DK18103010	Capacitor, Ceramic, 0.01 μ F+80, -20%
C143	1	DK18403020	Capacitor, Ceramic, 0.04 μ F+80, -20%
C144	1	EA10801090	Capacitor, Electrolytic, 1000 μ F+100, 0%

REF. DESIG.	Q'TY	PART NO.	DESCRIPTION
C145	1	DD15301020	Capacitor, Ceramic, 300pF $\pm$ 5%
C146	1	DD16201010	Capacitor, Ceramic, 200pF $\pm$ 10%
C147	1	DD16201010	Capacitor, Ceramic, 200pF $\pm$ 10%
C148	1	EA47503590	Capacitor, Electrolytic, 4.7 μ F+100, 0%
C149	1	DF17333010	Capacitor, Film, 5 $\pm$ 0.5PF
C150	1	EA47503590	Capacitor, Electrolytic, 4.7 μ F+100, 0%
C151	1	DD11030010	Capacitor, Ceramic, 3PF
C152	1	CP22400180	Capacitor, Variable
C153	1	DD11030010	Capacitor, Ceramic, 3PF
C154	1	DF16472010	Capacitor, Film, 0.0047 μ F $\pm$ 10%
C155	1	DK17102010	Capacitor, Ceramic, 0.01 μ F+80, -20%
C156	1	DF65301010	Capacitor, Film, 300pF $\pm$ 5%
C157	1	DD12050010	Capacitor, Ceramic, 5pF $\pm$ 1PF
C158	1	CT11450010	Capacitor, Trimming
C159	1	CT11450010	Capacitor, Trimming
C160	1	DF17562010	Capacitor, Film, 0.0056 μ F $\pm$ 20%
C161	1	DF65322010	Capacitor, Film, 0.0032 μ F $\pm$ 5%
C162	1	DF16103010	Capacitor, Film, 0.01 μ F $\pm$ 10%
C163	1	DK17502010	Capacitor, Ceramic, 0.005 μ F $\pm$ 20%
C164	1	DK18403020	Capacitor, Ceramic, 0.04 μ F+80, -20%
C165	1	DK18403020	Capacitor, Ceramic, 0.04 μ F+80, -20%
C166	1	EA10601690	Capacitor, Electrolytic, 10 μ F+100, 0%
C167	1	DD11020010	Capacitor, Ceramic, 2pF $\pm$ 0.05pF
C168	1	EA33601090	Capacitor, Electrolytic, 33 μ F+100, 0%
C169	1	DK18403020	Capacitor, Ceramic, 0.04 μ F+80, -20%
C170	1	DK18203030	Capacitor, Ceramic, 0.02 μ F+80, -20%
C171	1	DF17403010	Capacitor, Film, 0.04 μ F $\pm$ 20%
C172	1	DF16103010	Capacitor, Film, 0.01 μ F $\pm$ 10%
C173	1	DF17153010	Capacitor, Film, 0.015 μ F $\pm$ 20%
C174	1	EA22700690	Capacitor, Electrolytic, 220 μ F+100, 0%
C175	1	DF17223010	Capacitor, Film, 0.022 μ F $\pm$ 20%
C176	1	DK17102010	Capacitor, Ceramic, 0.001 μ F $\pm$ 20%
C177	1	EA10701090	Capacitor, Electrolytic, 100 μ F+100, 0%
C178	1	DF16152010	Capacitor, Film, 0.0015 μ F $\pm$ 10%
C179	1	DF16103010	Capacitor, Film, 0.01 μ F $\pm$ 10%
C180	1	DF65102010	Capacitor, Film, 0.001 μ F $\pm$ 5%
C181	1	EA10601690	Capacitor, Electrolytic, 10 μ F+100, 0%
C182	1	DF16152010	Capacitor, Film, 0.0015 μ F $\pm$ 10%
C183	1	DF16152010	Capacitor, Film, 0.0015 μ F $\pm$ 10%
C184	1	EM10402510	Capacitor, Electrolytic, 0.1 μ F $\pm$ 20%
C185	1	EM10402510	Capacitor, Electrolytic, 0.1 μ F $\pm$ 20%
C186	1	DF65322010	Capacitor, Film, 0.0032 μ F $\pm$ 5%
C187	1	DF65322010	Capacitor, Film, 0.0032 μ F $\pm$ 5%
C188	1	DF16682010	Capacitor, Film, 0.0068 μ F $\pm$ 10%
C189	1	DF16682010	Capacitor, Film, 0.0068 μ F $\pm$ 10%
C190	1	DF16822010	Capacitor, Film, 0.0068 μ F $\pm$ 10%
C191	1	DF16822010	Capacitor, Film, 0.0068 μ F $\pm$ 10%
C192	1	DD12100060	Capacitor, Ceramic, 10pF $\pm$ 1pF
C193	1	DD11030010	Capacitor, Ceramic, 3pF $\pm$ 1pF
C194	1	DD16501010	Capacitor, Ceramic, 500pF $\pm$ 10%
C195	1	DF17273010	Capacitor, Film, 0.027 μ F $\pm$ 20%
C196	1	DK18103010	Capacitor, Ceramic, 0.01 μ F+80, -20%
C197	1	DD15250020	Capacitor, Ceramic, 25pF+100, 0%
C198	1	DD16201010	Capacitor, Ceramic, 200pF $\pm$ 10%
F101	1	FF39800010	Filter, LC, B.P.F. 88/108MHz
F102	1	FF11070050	Filter, Ceramic, 10.7MHz
F103	1	FF11070050	Filter, Ceramic, 10.7MHz
J101	1	BY01120010	Jack Board
L102	1	LA70178060	Coil, Antenna, FM
L103	1	LC16810010	Coil, Choke, FM

REF. DESIG.	Q'TY	PART NO.	DESCRIPTION	REF. DESIG.	Q'TY	PART NO.	DESCRIPTION
L104	1	LI70018010	IFT, FM	R111	1	GD05103140	Resistor, Fixed, 10K Ω ±5%, 1/4W
L106	1	LA70238010	Coil, Antenna, FM	R112	1	GD05103140	Resistor, Fixed, 10K Ω ±5%, 1/4W
L107	1	LC11030030	Coil, Choke, AM	R113	1	GD05562140	Resistor, Fixed, 5.6K Ω ±5%, 1/4W
L108	1	LI71016040	IFT, FM	R114	1	GD05332140	Resistor, Fixed, 3.3K Ω ±5%, 1/4W
L109	1	LI71010030	IFT, FM	R115	1	GD05331140	Resistor, Fixed, 330 Ω ±5%, 1/4W
L110	1	LI70138010	IFT, FM	R116	1	GD05103140	Resistor, Fixed, 10K Ω ±5%, 1/4W
L111	1	LI70018020	IFT, FM	R117	1	GD05103140	Resistor, Fixed, 10K Ω ±5%, 1/4W
L112	1	LF11400880	Coil, Antenna, MW/SW	R118	1	GD05334140	Resistor, Fixed, 330K Ω ±5%, 1/4W
L113	1	LO71010010	Coil, OSC, MW	R119	1	GD05680140	Resistor, Fixed, 68 Ω ±5%, 1/4W
L114	1	LO71010042	Coil, OSC, SW	R120	1	GD05561140	Resistor, Fixed, 560 Ω ±5%, 1/4W
L115	1	LI70033020	IFT, AM	R121	1	GD05101140	Resistor, Fixed, 100 Ω ±5%, 1/4W
L116	1	FF10045140	Filter, Ceramic, AM IFT	R122	1	GD05332140	Resistor, Fixed, 3.3K Ω ±5%, 1/4W
L117	1	LS10290020	Coil, MPX, FM, 19KHz	R123	1	GD05561140	Resistor, Fixed, 560 Ω ±5%, 1/4W
L118	1	LS10290010	Coil, MPX, FM, 38KHz	R124	1	GD05472140	Resistor, Fixed, 4.7K Ω ±5%, 1/4W
L119	1	LC22260010	Coil, Choke, FM MPX	R125	1	GD05561140	Resistor, Fixed, 560 Ω ±5%, 1/4W
L120	1	LC22260010	Coil, Choke, FM MPX	R126	1	GD05102140	Resistor, Fixed, 1K Ω ±5%, 1/4W
P100	1	YK41231210	P.W. Board Main	R127	1	GD05105140	Resistor, Fixed, 1M Ω ±5%, 1/4W
	1	ZZ41821210	P.W. Board Assembly	R128	1	GD05561140	Resistor, Fixed, 560 Ω ±5%, 1/4W
Q101	1	HT310471C0	Transistor, 2SC1047(C), FM RF	R129	1	GD05102140	Resistor, Fixed, 1K Ω ±5%, 1/4W
Q102	1	HT310471B0	Transistor, 2SC1047(B), FM Mix	R130	1	GD05561140	Resistor, Fixed, 560 Ω ±5%, 1/4W
Q103	1	HT313591B0	Transistor, 2SC1359(B), FM OSC	R131	1	GD05272140	Resistor, Fixed, 2.7K Ω ±5%, 1/4W
Q104	1	HT308291B0	Transistor, 2SC829(B), FM IF-1	R132	1	GD05561140	Resistor, Fixed, 560 Ω ±5%, 1/4W
Q105	1	HT308291C0	Transistor, 2SC829(C), FM IF-2	R133	1	GD05102140	Resistor, Fixed, 1K Ω ±5%, 1/4W
Q106	1	HT308291B0	Transistor, 2SC829(B), FM IF-3	R134	1	GD05562140	Resistor, Fixed, 5.6K Ω ±5%, 1/4W
Q107	1	HT308291B0	Transistor, 2SC829(B), FM IF-4, MW-SW IF-2	R135	1	GD05153140	Resistor, Fixed, 15K Ω ±5%, 1/4W
Q108	1	HT308291C0	Transistor, 2SC829(C), FM IF-5	R136	1	GD05471140	Resistor, Fixed, 470 Ω ±5%, 1/4W
Q109	1	HT308291B0	Transistor, 2SC829(B), MW-SW Conv	R137	1	GD05561140	Resistor, Fixed, 560 Ω ±5%, 1/4W
Q110	1	HT308291C0	Transistor, 2SC829(C), MW-SW IF-1	R138	1	GD05470140	Resistor, Fixed, 470 Ω ±5%, 1/4W
Q111	1	HC10012030	IC, LA-3301, FM MPX	R139	1	GD05101140	Resistor, Fixed, 100 Ω ±5%, 1/4W
Q112	1	HD20011050	Diode, IS1555	R140	1	GD05101140	Resistor, Fixed, 100 Ω ±5%, 1/4W
Q113	1	HD20011050	Diode, IS1555, FM AGC	R141	1	GD05334140	Resistor, Fixed, 330K Ω ±5%, 1/4W
Q114	1	HD20011050	Diode, IS1555, FM OSC Comp	R142	1	GD05821140	Resistor, Fixed, 820 Ω ±5%, 1/4W
Q115	1	HD40009090	Varicap, IS2688, FM AFC	R143	1	GD05471140	Resistor, Fixed, 470 Ω ±5%, 1/4W
Q116	1	HD10001050	Diode, IN60, FM AGC	R144	1	GD05101140	Resistor, Fixed, 100 Ω ±5%, 1/4W
Q117	1	HD10001050	Diode, IN60, FM AGC	R145	1	GD05472140	Resistor, Fixed, 4.7K Ω ±5%, 1/4W
Q118	1	HD20011050	Diode, IS1555, FM AGC	R146	1	GD05104140	Resistor, Fixed, 100K Ω ±5%, 1/4W
Q119	1	HD30019090	Diode, Zener, BZ-071	R147	1	GJ05101010	Resistor, Fixed, 100 Ω ±5%, 1W
Q120	1	HD10003020	Diode, 20A90, FM DET	R148	1	GD05102140	Resistor, Fixed, 1K Ω ±5%, 1/4W
Q121	1	HD10003020	Diode, 20A90, FM DET	R149	1	GD05152140	Resistor, Fixed, 1.5K Ω ±5%, 1/4W
Q122	1	HD10001050	Diode, IN60, AM OSC Comp	R150	1	GD05562140	Resistor, Fixed, 5.6K Ω ±5%, 1/4W
Q123	1	HD10001050	Diode, IN60, AM AGC	R151	1	GD05562140	Resistor, Fixed, 5.6K Ω ±5%, 1/4W
Q124	1	HD10001050	Diode, IN60, AM AGC	R152	1	GD05222140	Resistor, Fixed, 2.2K Ω ±5%, 1/4W
Q125	1	HD10001050	Diode, IN60, AM DET	R153	1	GD05221140	Resistor, Fixed, 220 Ω ±5%, 1/4W
Q126	1	HD10001050	Diode, IN60, AM Meter	R154	1	GD05153140	Resistor, Fixed, 15K Ω ±5%, 1/4W
Q127	1	HD10001050	Diode, IN60, AM Meter	R155	1	GD05472140	Resistor, Fixed, 4.7K Ω ±5%, 1/4W
Q128	1	HD20001210	Diode, IS2473, AM AGC	R156	1	GD05222140	Resistor, Fixed, 2.2K Ω ±5%, 1/4W
Q129	1	HT308281C0	Transistor, 2SC828(R), FM Auto Stereo	R157	1	GD05104140	Resistor, Fixed, 100K Ω ±5%, 1/4W
R101	1	GD05222140	Resistor, 2.2K Ω ±5%, 1/4W	R158	1	GD05332140	Resistor, Fixed, 3.3K Ω ±5%, 1/4W
R102	1	GD05683140	Resistor, 68K Ω ±5%, 1/4W	R159	1	GD05274140	Resistor, Fixed, 270K Ω ±5%, 1/4W
R103	1	GD05222140	Resistor, Fixed, 2.2 Ω ±5%, 1/4W	R160	1	GD05393140	Resistor, Fixed, 39K Ω ±5%, 1/4W
R104	1	GD05561140	Resistor, Fixed, 560 Ω ±5%, 1/4W	R161	1	GD05471140	Resistor, Fixed, 470 Ω ±5%, 1/4W
R105	1	GD05330140	Resistor, Fixed, 33 Ω ±5%, 1/4W	R162	1	GD05101140	Resistor, Fixed, 100 Ω ±5%, 1/4W
R106	1	GD05330140	Resistor, Fixed, 33 Ω ±5%, 1/4W	R163	1	GD05682140	Resistor, Fixed, 6.8K Ω ±5%, 1/4W
R107	1	GD05223140	Resistor, Fixed, 22K Ω ±5%, 1/4W	R164	1	GD05561140	Resistor, Fixed, 560 Ω ±5%, 1/4W
R108	1	GD05682140	Resistor, Fixed, 6.8K Ω ±5%, 1/4W	R165	1	GD05221140	Resistor, Fixed, 220 Ω ±5%, 1/4W
R109	1	GD05152140	Resistor, Fixed, 1.5K Ω ±5%, 1/4W	R166	1	GD05102140	Resistor, Fixed, 1K Ω ±5%, 1/4W
R110	1	GD05100140	Resistor, Fixed, 10 Ω ±5%, 1/4W	R167	1	GD05822140	Resistor, Fixed, 8.2K Ω ±5%, 1/4W
				R169	1	GD05821140	Resistor, Fixed, 820 Ω ±5%, 1/4W
				R170	1	GD05471140	Resistor, Fixed, 470 Ω ±5%, 1/4W
				R171	1	GD05334140	Resistor, Fixed, 330K Ω ±5%, 1/4W

REF. DESIG.	Q'TY	PART NO.	DESCRIPTION	REF. DESIG.	Q'TY	PART NO.	DESCRIPTION
R172	1	GD05471140	Resistor, Fixed, 470Ω±5%, 1/4W	Q204	1	HT308282A0	Transistor, 2SC828(R,S)
R173	1	GD05472140	Resistor, Fixed, 4.7KΩ±5%, 1/4W	Q205	1	HT313272A0	Transistor, 2SC1327(S,T)
R174	1	RA01020110	Resistor, Trimmer, 1KΩ	Q206	1	HT313271U0	Transistor, 2SC1327(U)
R175	1	GD05470140	Resistor, Fixed, 47Ω±5%, 1/4W	Q207	1	HT308282A0	Transistor, 2SC828(R,S)
R176	1	GD05332140	Resistor, Fixed, 3.3KΩ±5%, 1/4W	Q208	1	HT308282A0	Transistor, 2SC828(R,S)
R177	1	GD05332140	Resistor, Fixed, 3.3KΩ±5%, 1/4W	Q209	1	HD20002060	Diode, 1S1212
R178	1	GD05333140	Resistor, Fixed, 33KΩ±5%, 1/4W	Q210	1	HD20002060	Diode, 1S1212
R179	1	GD05333140	Resistor, Fixed, 33KΩ±5%, 1/4W	Q211	1	HD20002060	Diode, 1S1212
R180	1	GD05103140	Resistor, Fixed, 10KΩ±5%, 1/4W	R201	1	GD05332140	Resistor, Fixed, 3.3KΩ±5%, 1/4W
R181	1	GD05221140	Resistor, Fixed, 220Ω±5%, 1/4W	R202	1	GD05222140	Resistor, Fixed, 2.2KΩ±5%, 1/4W
R182	1	GD05221140	Resistor, Fixed, 220Ω±5%, 1/4W	R203	1	GD05100140	Resistor, Fixed, 10Ω±5%, 1/4W
S101	1	SP06070020	Pushswitch	R204	1	GD05562140	Resistor, Fixed, 5.6KΩ±5%, 1/4W
S102	1	SS12020060	Slide Switch	R205	1	GD05102140	Resistor, Fixed, 1KΩ±5%, 1/4W
C201	1	EM22402510	Capacitor, Electrolytic, 0.22μF, 25V	R206	1	GD05683140	Resistor, Fixed, 68KΩ±5%, 1/4W
C202	1	DF16333010	Capacitor, Film, 0.033μF±10%, 50V	R207	1	GD05271140	Resistor, Fixed, 270Ω±5%, 1/4W
C203	1	EA10601690	Capacitor, Electrolytic, 10μF, 16V	R208	1	GD05104140	Resistor, Fixed, 100KΩ±5%, 1/4W
C204	1	EA47503590	Capacitor, Electrolytic, 4.7μF, 35V	R209	1	GD05683140	Resistor, Fixed, 68KΩ±5%, 1/4W
C205	1	DF56561500	Capacitor, Film, 560PF ±5%, 125V	R210	1	GD05822140	Resistor, Fixed, 8.2KΩ±5%, 1/4W
C206	1	EA22701690	Capacitor, Electrolytic, 220μF, 16V	R211	1	GD05101140	Resistor, Fixed, 100Ω±5%, 1/4W
C207	1	DD16201010	Capacitor, Ceramic, 200pF±10%, 50V	R212	1	GD05102140	Resistor, Fixed, 1KΩ±5%, 1/4W
C208	1	DD16101010	Capacitor, Ceramic, 100pF±10%, 50V	R213	1	GD05823140	Resistor, Fixed, 82KΩ±5%, 1/4W
C209	1	EA10505090	Capacitor, Electrolytic, 1μF, 50V	R214	1	GD05682140	Resistor, Fixed, 6.8KΩ±5%, 1/4W
C210	1	EA10601690	Capacitor, Electrolytic, 10μF, 16V	R215	1	GD05472140	Resistor, Fixed, 4.7KΩ±5%, 1/4W
C211	1	DD16501010	Capacitor, Ceramic, 500pF±10%, 50V	R216	1	GD05822140	Resistor, Fixed, 8.2KΩ±5%, 1/4W
C212	1	DF16223010	Capacitor, Film, 0.022μF±10%, 50V	R217	1	RA01030180	Resistor, Trimmer, 10KΩ
C213	1	EA22701690	Capacitor, Electrolytic, 220μF, 16V	R218	1	GD05563140	Resistor, Fixed, 56KΩ±5%, 1/4W
C214	1	EA10505090	Capacitor, Electrolytic, 1μF, 50V	R219	1	GD05102140	Resistor, Fixed, 1KΩ±5%, 1/4W
C215	1	EA10601690	Capacitor, Electrolytic, 10μF, 16V	R220	1	GD05332140	Resistor, Fixed, 3.3KΩ±5%, 1/4W
C216	1	EA33601090	Capacitor, Electrolytic, 33μF, 10V	R221	1	RA05030060	Resistor, Trimmer, 50KΩ
C217	1	EA47503590	Capacitor, Electrolytic, 4.7μF, 35V	R222	1	GD05124140	Resistor, Fixed, 120KΩ±5%, 1/4W
C218	1	DF16122010	Capacitor, Film, 0.0012μF±10%, 50V	R225	1	GD05473140	Resistor, Fixed, 47KΩ±5%, 1/4W
C220	1	EA47701690	Capacitor, Electrolytic, 470μF, 16V	R226	1	GD05184140	Resistor, Fixed, 180KΩ±5%, 1/4W
C221	1	EA10701690	Capacitor, Electrolytic, 100μF	R227	1	GD05393140	Resistor, Fixed, 39KΩ±5%, 1/4W
C222	1	EA47601090	Capacitor, Electrolytic, 47μF	R228	1	GD05123140	Resistor, Fixed, 12KΩ±5%, 1/4W
C223	1	EA47601090	Capacitor, Electrolytic, 47μF	R229	1	GD05331140	Resistor, Fixed, 330Ω±5%, 1/4W
C224	1	DF65681010	Capacitor, Film, 680pF	R230	1	GD05683140	Resistor, Fixed, 68KΩ±5%, 1/4W
C225	1	DD16500010	Capacitor, Ceramic, 50pF	R231	1	GD05103140	Resistor, Fixed, 10KΩ±5%, 1/4W
C226	1	DD16500010	Capacitor, Ceramic, 50pF	R232	1	GD05182140	Resistor, Fixed, 1.8KΩ±5%, 1/4W
C227	1	EA10701090	Capacitor, Electrolytic, 100μF	R233	1	GD05101140	Resistor, Fixed, 100Ω±5%, 1/4W
C228	1	EA33601690	Capacitor, Electrolytic, 33μF	R234	1	GD05683140	Resistor, Fixed, 68KΩ±5%, 1/4W
C229	1	DF16332010	Capacitor, Film, 0.0033μF	R235	1	GD05104140	Resistor, Fixed, 100KΩ±5%, 1/4W
C230	1	EM10402510	Capacitor, Electrolytic, 0.1μF	R236	1	GD0522140	Resistor, Fixed, 2.2KΩ±5%, 1/4W
C231	1	EM10402510	Capacitor, Electrolytic, 0.1μF, 25V	R237	1	GD05182140	Resistor, Fixed, 1.8KΩ±5%, 1/4W
C232	1	DD16501010	Capacitor, Ceramic, 500pF±10%, 50V	R238	1	GD05103140	Resistor, Fixed, 10KΩ±5%, 1/4W
C233	1	DD16201010	Capacitor, Ceramic, 200pF±10%, 50V	R239	1	GD05183140	Resistor, Fixed, 18KΩ±5%, 1/4W
C234	1	EA10505090	Capacitor, Electrolytic, 1μF, 50V	R240	1	GD05562140	Resistor, Fixed, 5.6KΩ±5%, 1/4W
C235	1	DF16563010	Capacitor, Film, 0.056μF±10%, 50V	R241	1	GD05562140	Resistor, Fixed, 5.6KΩ±5%, 1/4W
C236	1	EA10701690	Capacitor, Electrolytic, 100μF, 16V	R242	1	GD05682140	Resistor, Fixed, 6.8KΩ±5%, 1/4W
C237	1	DF16333010	Capacitor, Film, 0.033μF±10%, 50V	R243	1	GD05221140	Resistor, Fixed, 220Ω±5%, 1/4W
C238	1	DD16501010	Capacitor, Ceramic, 500pF±10%, 50V	R244	1	GD05274140	Resistor, Fixed, 270KΩ±5%, 1/4W
C239	1	EA10601690	Capacitor, Electrolytic, 10μF, 16V	R245	1	GD05102140	Resistor, Fixed, 1KΩ±5%, 1/4W
C240	1	DD16501010	Capacitor, Ceramic, 500pF±10%, 50V	R246	1	GD05561140	Resistor, Fixed, 560Ω±5%, 1/4W
C241	1	DK18103010	Capacitor, Ceramic, 0.01μF±10%, 50V	R247	1	GD05562140	Resistor, Fixed, 5.6KΩ±5%, 1/4W
J201	81	YP10001130	Plug	R248	1	GD05681140	Resistor, Fixed, 680Ω±5%, 1/4W
J281	1	LC25650010	Coil, Choke, 5.6mH	R249	1	GD05332140	Resistor, Fixed, 3.3KΩ±5%, 1/4W
Q201	1	HT313271U0	Transistor, 2SC1327(U)	R250	1	GD05332140	Resistor, Fixed, 3.3KΩ±5%, 1/4W
Q202	1	HT313272A0	Transistor, 2SC1327(S,T)	R251	1	GD05823140	Resistor, Fixed, 82KΩ±5%, 1/4W
Q203	1	HT313831X0	Transistor, 2SC1383(X)	R252	1	GD05562140	Resistor, Fixed, 5.6KΩ±5%, 1/4W
				R253	1	GD05471140	Resistor, Fixed, 470Ω±5%, 1/4W
				R254	1	GD05222140	Resistor, Fixed, 2.2KΩ±5%, 1/4W

REF. DESIG.	Q'TY	PART NO.	DESCRIPTION	REF. DESIG.	Q'TY	PART NO.	DESCRIPTION
T201	1	TO12501012	Output Transformer	R309	1	GD05683140	Resistor, Fixed, 68K Ω ±5%, 1/4W
C301	1	EM22402510	Capacitor, Electrolytic, 0.22 μ F, 25V	R310	1	GD05822140	Resistor, Fixed, 8.2K Ω ±5%, 1/4W
C302	1	DF16333010	Capacitor, Film, 0.033 μ F±10%, 50V	R311	1	GD05101140	Resistor, Fixed, 100 Ω ±5%, 1/4W
C303	1	EA10601690	Capacitor, Electrolytic, 10 μ F, 16V	R312	1	GD05102140	Resistor, Fixed, 1K Ω ±5%, 1/4W
C304	1	EA47503590	Capacitor, Electrolytic, 4.7 μ F, 35V	R313	1	GD05823140	Resistor, Fixed, 82K Ω ±5%, 1/4W
C305	1	DF56561500	Capacitor, Film, 560pF±5%, 125V	R314	1	RA02030030	Resistor, Fixed, 6.8K Ω ±5%, 1/4W
C307	1	DD16201010	Capacitor, Ceramic, 200pF±10%, 50V	R315	1	GD05472140	Resistor, Fixed, 4.7K Ω ±5%, 1/4W
C308	1	DD16101010	Capacitor, Ceramic, 100pF±10%, 50V	R316	1	GD05822140	Resistor, Fixed, 8.2K Ω ±5%, 1/4W
C309	1	EA10505090	Capacitor, Electrolytic, 1 μ F, 50V	R317	1	GD05392140	Resistor, Fixed, 3.9K Ω ±5%, 1/4W
C310	1	EA10601690	Capacitor, Electrolytic, 10 μ F, 16V	R318	1	GD05563140	Resistor, Fixed, 56K Ω ±5%, 1/4W
C311	1	DD16501010	Capacitor, Ceramic, 500pF±10%, 50V	R319	1	GD05102140	Resistor, Fixed, 1K Ω ±5%, 1/4W
C312	1	DF16223010	Capacitor, Film, 0.02 μ F±10%, 50V	R320	1	GD05101140	Resistor, Fixed, 100 Ω ±5%, 1/4W
C313	1	EA22701690	Capacitor, Electrolytic, 220 μ F, 16V	R321	1	GD05333140	Resistor, Fixed, 33K Ω ±5%, 1/4W
C314	1	EA10505090	Capacitor, Electrolytic, 1 μ F, 50V	R323	1	GD05124140	Resistor, Fixed, 120K Ω ±5%, 1/4W
C315	1	EA10601690	Capacitor, Electrolytic, 10 μ F, 16V	R327	1	GD05393140	Resistor, Fixed, 39K Ω ±5%, 1/4W
C317	1	EA10801690	Capacitor, Electrolytic, 1000 μ F, 16V	R328	1	GD05123140	Resistor, Fixed, 12K Ω ±5%, 1/4W
C318	1	DF16122010	Capacitor, Film, 0.0012 μ F±10%, 50V	R329	1	GD05331140	Resistor, Fixed, 330 Ω ±5%, 1/4W
C320	1	EA47701690	Capacitor, Electrolytic, 470 μ F, 16V	R330	1	GD05683140	Resistor, Fixed, 68K Ω ±5%, 1/4W
C321	1	EA10701690	Capacitor, Electrolytic, 100 μ F	R331	1	GD05103140	Resistor, Fixed, 10K Ω ±5%, 1/4W
C322	1	EA47601090	Capacitor, Electrolytic, 47 μ F	R332	1	GD05182140	Resistor, Fixed, 1.8K Ω ±5%, 1/4W
C323	1	EA47601090	Capacitor, Electrolytic, 47 μ F	R333	1	GD05101140	Resistor, Fixed, 100 Ω ±5%, 1/4W
C324	1	DF65681010	Capacitor, Film, 680pF	R334	1	GD05683140	Resistor, Fixed, 68K Ω ±5%, 1/4W
C325	1	DD16500010	Capacitor, Ceramic, 50pF	R335	1	GD05104140	Resistor, Fixed, 100K Ω ±5%, 1/4W
C326	1	DD16500010	Capacitor, Ceramic, 50pF	R336	1	GD05560140	Resistor, Fixed, 56 Ω ±5%, 1/4W
C327	1	EA10701090	Capacitor, Electrolytic, 100 μ F	R337	1	GD05182140	Resistor, Fixed, 1.8K Ω ±5%, 1/4W
C328	1	EA33601690	Capacitor, Electrolytic, 33 μ F	R338	1	GD05103140	Resistor, Fixed, 10K Ω ±5%, 1/4W
C329	1	DF16332010	Capacitor, Film, 0.0033 μ F	R339	1	GD05183140	Resistor, Fixed, 18K Ω ±5%, 1/4W
C330	1	EM10402510	Capacitor, Electrolytic, 0.1 μ F	R341	1	GD05562140	Resistor, Fixed, 5.6K Ω ±5%, 1/4W
C331	1	EM10402510	Capacitor, Electrolytic, 0.1 μ F, 25V	R342	1	GD05682140	Resistor, Fixed, 6.8K Ω ±5%, 1/4W
C332	1	DD16501010	Capacitor, Ceramic, 500pF±10%, 50V	R343	1	GD05221140	Resistor, Fixed, 220 Ω ±5%, 1/4W
C333	1	DD16201010	Capacitor, Ceramic, 200pF±10%, 50V	R344	1	GD05274140	Resistor, Fixed, 270K Ω ±5%, 1/4W
C334	1	EA10505090	Capacitor, Electrolytic, 1 μ F, 50V	R345	1	GD05102140	Resistor, Fixed, 1K Ω ±5%, 1/4W
C335	1	DF16563010	Capacitor, Film, 0.056 μ F±10%, 50V	R346	1	GD05561140	Resistor, Fixed, 560 Ω ±5%, 1/4W
C336	1	EA10701690	Capacitor, Electrolytic, 100 μ F, 16V	R347	1	GD05562140	Resistor, Fixed, 5.6K Ω ±5%, 1/4W
C337	1	DF16333010	Capacitor, Film, 0.033 μ F±10%, 50V	R348	1	GD05681140	Resistor, Fixed, 680 Ω ±5%, 1/4W
C338	1	DD16501010	Capacitor, Ceramic, 500pF±10%, 50V	R349	1	GD05332140	Resistor, Fixed, 3.3K Ω ±5%, 1/4W
C339	1	EA47701690	Capacitor, Electrolytic, 470 μ F, 16V	R350	1	GD05332140	Resistor, Fixed, 3.3K Ω ±5%, 1/4W
C340	1	DD16501010	Capacitor, Ceramic, 500pF±10%, 50V	R351	1	GD05823140	Resistor, Fixed, 82K Ω ±5%, 1/4W
J302	1	YJ06001050	Jack	R352	1	GD05562140	Resistor, Fixed, 5.6K Ω ±5%, 1/4W
J303	1	YJ06001060	Jack	R354	1	GD05222140	Resistor, Fixed, 2.2K Ω ±5%, 1/4W
J304	1	YJ06001070	Jack	T301	1	TO12501012	Output Transformer
J305	1	YJ06001050	Jack	C401	1	EA33502590	Capacitor, Electrolytic, 3.3 μ F, 25V
L301	1	LC25650010	Coil, Choke, 5.6mH	C402	1	EA33502590	Capacitor, Electrolytic, 3.3 μ F, 25V
Q301	1	HT313271U0	Transistor, 2SC1327(U)	C403	1	DF16103010	Capacitor, Film, 0.01 μ F±10%, 50V
Q302	1	HT313272A0	Transistor, 2SC1327(S, T)	C404	1	DF16103010	Capacitor, Film, 0.01 μ F±10%, 50V
Q303	1	HT313831X0	Transistor, 2SC1383(X)	C405	1	EA47602590	Capacitor, Electrolytic, 470 μ F, 25V
Q304	1	HT308282A0	Transistor, 2SC828 (R, S)	C406	1	EA47602590	Capacitor, Electrolytic, 470 μ F, 25V
Q305	1	HT313272A0	Transistor, 2SC1327(S, T)	C407	1	EA10601690	Capacitor, Electrolytic, 10 μ F, 16V
Q306	1	HT313271U0	Transistor, 2SC1327(U)	C408	1	EA10601690	Capacitor, Electrolytic, 10 μ F, 16V
Q308	1	HT308282A0	Transistor, 2SC828(R, S)	C409	1	EA10701090	Capacitor, Electrolytic, 100 μ F, 10V
Q309	1	HD20002060	Diode, 1S1212	C410	1	EA10701090	Capacitor, Electrolytic, 100 μ F, 10V
Q311	1	HD20002060	Diode, 1S1212	C411	1	DF16103010	Capacitor, Film, 0.01 μ F±10%, 50V
R301	1	GD05332140	Resistor, Fixed, 3.3K Ω ±5%, 1/4W	C412	1	DF16103010	Capacitor, Film, 0.01 μ F±10%, 50V
R302	1	GD05222140	Resistor, Fixed, 2.2K Ω ±5%, 1/4W	C413	1	DF16683010	Capacitor, Film, 0.068 μ F±10%, 50V
R303	1	GD05100140	Resistor, Fixed, 10 Ω ±5%, 1/4W	C414	1	DF16683010	Capacitor, Film, 0.068 μ F±10%, 50V
R304	1	GD05562140	Resistor, Fixed, 5.6K Ω ±5%, 1/4W	C415	1	EA47601090	Capacitor, Electrolytic, 47 μ F, 10V
R305	1	GD05102140	Resistor, Fixed, 1K Ω ±5%, 1/4W	C416	1	EA47601090	Capacitor, Electrolytic, 47 μ F, 10V
R306	1	GD05683140	Resistor, Fixed, 68K Ω ±5%, 1/4W	C417	1	DD16201010	Capacitor, Ceramic, 200pF±10%, 50V
R307	1	GD05271140	Resistor, Fixed, 270 Ω ±5%, 1/4W	C418	1	DD16201010	Capacitor, Ceramic, 200pF±10%, 50V
R308	1	GD05104140	Resistor, Fixed, 100K Ω ±5%, 1/4W	C419	1	EA47701690	Capacitor, Electrolytic, 470 μ F, 16V

REF. DESIG.	Q'TY	PART NO.	DESCRIPTION
C422	1	DF66181500	Capacitor, Film, 180pF±10%, 125V
C423	1	DF65331500	Capacitor, Film, 330pF±5%, 125V
C424	1	DF65331500	Capacitor, Film, 330pF±5%, 125V
C425	1	DF16103010	Capacitor, Film, 0.01μF±10%, 50V
C426	1	DF16472010	Capacitor, Film, 0.0047μF±10%, 50V
C427	1	DF16103010	Capacitor, Film, 0.015μF±10%, 50V
C428	1	EA10701690	Capacitor, Electrolytic, 100μF, 16V
C429	1	DK18503010	Capacitor, Ceramic, 0.05μF, 50V
C430	1	DF16152510	Capacitor, Film, 0.0015μF±10%, 200V
C431	1	DF16152510	Capacitor, Film, 0.0015μF±10%, 200V
C432	1	EA22802590	Capacitor, Electrolytic, 2200μF, 25V
C433	1	DK18503010	Capacitor, Ceramic, 0.05μF, 50V
C434	1	DK18503010	Capacitor, Ceramic, 0.05μF, 50V
C435	1	EA10702590	Capacitor, Electrolytic, 100μF, 25V
C437	1	EA47601690	Capacitor, Electrolytic, 47μF, 16V
C438	1	EA47601690	Capacitor, Electrolytic, 47μF, 16V
J401	1	YP06001060	Plug, 7-Pin
J402	1	YP06001060	Plug, 7-Pin
J403	33	YP10001130	Plug
J435			
L401	1	LC22260010	Coil, Choke, 22mH
L402	1	LC22260010	Coil, Choke, 22mH
L403	1	LC12750020	Coil, Choke, 2.7mH
L404	1	LC14730010	Coil, Choke, 47μH
P400	1	YD41230040	P.W. Board (Power Amp)
	1	ZZ41230040	P.W. Board Assembly
Q401	1	HC10028050	IC, Power, TA7208P
Q402	1	HC10028050	IC, Power, TA7208P
Q403	1	HT404712B0	Transistor, 2SD471 L, K
R401	1	GD05333140	Resistor, Fixed, 33KΩ±5%, 1/4W
R402	1	GD05333140	Resistor, Fixed, 33KΩ±5%, 1/4W
R403	1	RA01040160	Resistor, Variable, 100KΩ
R404	1	RA01040160	Resistor, Variable, 100KΩ
R405	1	GD05153140	Resistor, Fixed, 15KΩ±5%, 1/4W
R406	1	GD05153140	Resistor, Fixed, 15KΩ±5%, 1/4W
R407	1	GD05333140	Resistor, Fixed, 33KΩ±5%, 1/4W
R408	1	RC10068120	Resistor, Fixed, 6.8Ω±10%, 1/2W
R409	1	GD05122140	Resistor, Fixed, 1.2KΩ±5%, 1/4W
R411	1	GD05221140	Resistor, Fixed, 220Ω±5%, 1/4W
R412	1	GD05221140	Resistor, Fixed, 220Ω±5%, 1/4W
R413	1	GD05333140	Resistor, Fixed, 33KΩ±5%, 1/4W
R414	1	GD05333140	Resistor, Fixed, 33KΩ±5%, 1/4W
R415	1	GJ05010110	Resistor, Fixed
T401	1	TC10150010	OSC Transformer
C501	1	DF65301010	Capacitor, Film, 300pF±5%, 50V
C502	1	DF65301010	Capacitor, Film, 300pF±5%, 50V
C505	1	EM10402510	Capacitor, Electrolytic, 0.1μF, 50V
C506	1	EM10402510	Capacitor, Electrolytic, 0.1μF, 50V
G501	1	IM11042330	Meter, DC
G502	1	IM11042330	Meter, DC
J501	1	YP06001050	Plug
J502	1	YP06001060	Plug
J503	1	YP06001070	Plug
J504	5	YP10001130	Plug
J508			
P500	1	YD41230050	P.W. Board (Meter)
	1	ZZ41230050	P.W. Board Assembly

REF. DESIG.	Q'TY	PART NO.	DESCRIPTION
Q501	1	HT105642B0	Transistor, 2SA564 (Q, R)
Q502	1	HT105642B0	Transistor, 2SA564 (Q, R)
R501	1	GD05683140	Resistor, Fixed, 68KΩ±5%, 1/4W
R502	1	GD05683140	Resistor, Fixed, 68KΩ±5%, 1/4W
R503	1	GD05100140	Resistor, Fixed, 10Ω±5%, 1/4W
R504	1	GD05681140	Resistor, Fixed, 680Ω±5%, 1/4W
R505	1	GD05223140	Resistor, Fixed, 22KΩ±5%, 1/4W
R506	1	RA05030060	Resistor, Trimmer, 50KΩ
R507	1	GD05123140	Resistor, Fixed, 12KΩ±5%, 1/4W
R508	1	GD05123140	Resistor, Fixed, 12KΩ±5%, 1/4W
R509	1	GD05433140	Resistor, Fixed, 43KΩ±5%, 1/4W
R510	1	GD05433140	Resistor, Fixed, 43KΩ±5%, 1/4W
R511	1	GD05104140	Resistor, Fixed, 100KΩ±5%, 1/4W
R512	1	GD05104140	Resistor, Fixed, 100KΩ±5%, 1/4W
R513	1	GD05562140	Resistor, Fixed, 5.6KΩ±5%, 1/4W
R514	1	GD05562140	Resistor, Fixed, 5.6KΩ±5%, 1/4W
R515	1	GD05332140	Resistor, Fixed, 3.3KΩ±5%, 1/4W
R516	1	GD05561140	Resistor, Fixed, 560Ω±5%, 1/4W
S501	1	SC06030010	Switch, Lever, Tape Selector
S502	1	SC04030030	Switch, Lever, Meter
S503	1	SC04030010	Switch, Lever Mode
C601	1	DF16472010	Capacitor, Film, 0.0047μF±10%, 50V
C602	1	DF16472010	Capacitor, Film, 0.0047μF±10%, 50V
C603	1	DF16683010	Capacitor, Film, 0.068μF±10%, 50V
C604	1	DF16683010	Capacitor, Film, 0.068μF±10%, 50V
C605	1	DF16333010	Capacitor, Film, 0.33μF±10%, 50V
C606	1	DF16333010	Capacitor, Film, 0.033μF±10%, 50V
C607	1	EM47402510	Capacitor, Electrolytic, 0.47μF, 25V
C608	1	EM47402510	Capacitor, Electrolytic, 0.47μF, 25V
C609	1	DF16102010	Capacitor, Film, 0.001μF±10%, 50V
C610	1	DF16102010	Capacitor, Film, 0.001μF±10%, 50V
C611	1	EM10402510	Capacitor, Electrolytic, 0.1μF, 25V
C612	1	EM10402510	Capacitor, Electrolytic, 0.1μF, 25V
J601	1	YP06001050	Plug
J602	6	YP10001130	Plug
J607			
P600	1	YD41230060	P.W. Board (Tone Control)
	1	ZZ41830060	P.W. Board Assembly
R601	1	GD05332140	Resistor, Fixed, 3.3KΩ±5%, 1/4W
R602	1	GD05332140	Resistor, Fixed, 3.3KΩ±5%, 1/4W
R603	1	GD05153140	Resistor, Fixed, 15KΩ±5%, 1/4W
R604	1	GD05153140	Resistor, Fixed, 15KΩ±5%, 1/4W
R605	1	GD05102140	Resistor, Fixed, 1KΩ±5%, 1/4W
R606	1	GD05102140	Resistor, Fixed, 1KΩ±5%, 1/4W
R607	1	GD05102140	Resistor, Fixed, 1KΩ±5%, 1/4W
R608	1	GD05102140	Resistor, Fixed, 1KΩ±5%, 1/4W
R609	1	GD05102140	Resistor, Fixed, 1KΩ±5%, 1/4W
R610	1	GD05102140	Resistor, Fixed, 1KΩ±5%, 1/4W
R611	1	GD05332140	Resistor, Fixed, 3.3KΩ±5%, 1/4W
R612	1	GD05332140	Resistor, Fixed, 3.3KΩ±5%, 1/4W
R613	1	RM05030660	Resistor, Variable, 50KΩ
R614	1	RM05030660	Resistor, Variable, 50KΩ
R615	1	RM05030180	Resistor, Variable, 50KΩ
R616	1	RM05030650	Resistor, Variable, 50KΩ
C701	1	DK18103010	Capacitor, Ceramic, 0.01μF+80, -20%, 50V
C702	1	DK18103010	Capacitor, Ceramic, 0.01μF+80, -20%, 50V

REF. DESIG.	Q'TY	PART NO.	DESCRIPTION
C703	1	DK18103010	Capacitor, Ceramic, 0.01 μ F+80, -20%, 50V
C704	1	DK18103010	Capacitor, Ceramic, 0.01 μ F+80, -20%, 50V
C705	1	EA22802590	Capacitor, Electrolytic, 2200 μ F, 25V
C706	1	EA22802590	Capacitor, Electrolytic, 2200 μ F, 25V
J701	11	YP10001130	Plug
J711			
J712			
J713			
P700	1	YD41230070	P.W. Board Power Supply
	1	ZZ41230070	Power Supply Assembly
Q701	1	HD20006100	Diode, Red, 10DC05
Q702	1	HD20007100	Diode, Black, 10DC05
Q703	1	HD20013100	Diode, 10DI, 100V, 1A
R701	1	GJ05820010	Resistor, Fixed, 82 Ω ±5%, 1W
R702	1	GJ05820010	Resistor, Fixed, 82 Ω ±5%, 1W
C801	1	EA10601690	Capacitor, Electrolytic, 10 μ F, 16V
C802	1	EA10601690	Capacitor, Electrolytic, 10 μ F, 16V
C803	1	EA10505090	Capacitor, Electrolytic, 1 μ F, 50V
C804	1	EA10505090	Capacitor, Electrolytic, 1 μ F, 50V
C805	1	EM10402510	Capacitor, Electrolytic, 0.1 μ F, 25V
C806	1	EM10402510	Capacitor, Electrolytic, 0.1 μ F, 25V
C807	1	EA10801690	Capacitor, Electrolytic, 1000 μ F, 16V
J801	7	YP10001130	Plug
J807			
P800	1	YD41230080	P.W. Board (Phono Equalizer)
	1	ZZ41230080	P.W. Board Assembly
Q801	1	HT313271T0	Transistor, 2SC1327 T
Q802	1	HT313271T0	Transistor, 2SC1327 T
R801	1	GD05472140	Resistor, Fixed, 4.7K Ω ±5%, 1/4W
R802	1	GD05472140	Resistor, Fixed, 4.7K Ω ±5%, 1/4W
R803	1	GD05104140	Resistor, Fixed, 100K Ω ±5%, 1/4W
R804	1	GD05104140	Resistor, Fixed, 100K Ω ±5%, 1/4W
R805	1	GD05472140	Resistor, Fixed, 4.7K Ω ±5%, 1/4W
R806	1	GD05472140	Resistor, Fixed, 4.7K Ω ±5%, 1/4W
R807	1	GD05121140	Resistor, Fixed, 120 Ω ±5%, 1/4W
R808	1	GD05121140	Resistor, Fixed, 120 Ω ±5%, 1/4W
R809	1	GD05183140	Resistor, Fixed, 18K Ω ±5%, 1/4W
R810	1	GD05183140	Resistor, Fixed, 18K Ω ±5%, 1/4W
R811	1	GD05182140	Resistor, Fixed, 1.8K Ω ±5%, 1/4W
R812	1	GD05182140	Resistor, Fixed, 1.8K Ω ±5%, 1/4W
C901	1	EE22701650	Capacitor, Electrolytic, 220 μ F±20%, 16V
C902	1	DK18103010	Capacitor, Ceramic, 0.01 μ +80, -20%, 50V
C903	1	EA10601690	Capacitor, Electrolytic, 10 μ F, 16V
C904	1	DK18403010	Capacitor, Ceramic, 0.04 μ F+80, -20%, 50V
J901	6	YP10001130	Plug
J906			
L901	1	LY20060040	Relay, 6V

REF. DESIG.	Q'TY	PART NO.	DESCRIPTION
P900	1	YF41230090	P.W. Board Noise Blanket
	1	ZZ41230090	P.W. Board Assembly
Q901	1	HT107331P0	Transistor, 2SA733 P
Q902	1	HT309451P0	Transistor, 2SC945 P
Q903	1	HT313171P0	Transistor, 2SC1317 P
Q904	1	HD20013100	Diode,
Q905	1	HD20013100	Diode,
Q906	1	HD30023090	Zener,
R901	1	RC10222120	Resistor, Fixed, 2.2K Ω ±10%, 1/2W
R902	1	RC10222120	Resistor, Fixed, 2.2K Ω ±10%, 1/2W
R903	1	RC10039120	Resistor, Fixed, 3.9 Ω ±10%, 1/2W
R904	1	RC10039120	Resistor, Fixed, 3.9 Ω ±10%, 1/2W
R905	1	GD05102140	Resistor, Fixed, 1K Ω ±5%, 1/4W
R906	1	GD05822140	Resistor, Fixed, 8.2K Ω ±5%, 1/4W
R907	1	GD05123140	Resistor, Fixed, 12K Ω ±5%, 1/4W
R908	1	GD05472140	Resistor, Fixed, 4.7K Ω ±5%, 1/4W
R909	1	GD05103140	Resistor, Fixed, 10K Ω ±5%, 1/4W
R910	1	GD05222140	Resistor, Fixed, 2.2K Ω ±5%, 1/4W
001U	2	4182805010	Master carton
002U	1	4182801010	Packing case
003U	1	4123809010	Cushion
004U	1	4123809020	Cushion
005U	1	9015350180	Polyethylene Bag
006U	1	9011020010	Polyethylene Bag
008U	2	9522815010	Serial No. card
009U	1	9011825010	Polyethylene Bag
913T	1	4182851310	Instructions
914T	1	3906854023	Guarantee Card
915T	1	2876851030	Instructions
916T	1	9630000170	Guarantee Card
ZB01	8	ZB02010070	Battery
AJ01	1	YP01000250	Plug
AY01	2	ZC01805010	Power Cord, AC